PHILOSOPHICAL
ESSAYS
ON
Various SUBJECTS,
VIZ.

Space, Subſtance, Body, Spirit, the Operations of the Soul in Union with the Body, innate Ideas, perpetual Conſciouſneſs, Place and Motion of Spirits, the departing Soul, the Reſurrection of the Body, the Production and Operations of Plants and Animals:

With ſome

REMARKS on Mr. *Locke*'s Eſſay on the HUMAN UNDERSTANDING.

To which is ſubjoined

A brief Scheme of ONTOLOGY,
OR THE
SCIENCE of BEING in general, with its AFFECTIONS.

By I. WATTS, *D. D.*

The FOURTH EDITION, Corrected.

LONDON:

Printed for T. LONGMAN and J. BUCKLAND in *Pater-noſter Row*, J. OSWALD in the *Poultry*, J. WAUGH in *Lombard-ſtreet*, and J. WARD in *Cornhill*.

BODLEIAN LIB
13
FEB
1928
OXFORD

THE PREFACE.

AMONG *the various* Philoſophical Enquiries *which my younger Studies had committed to Writing, theſe few have eſcaped the Injuries of Time, and other Accidents, and by the Perſuaſion of a learned Friend are now offer'd to the publick View. Some of them may date their Original at the Diſtance of Thirty Years: Many new Books have ſince appear'd in the World, and new Converſations have ariſen, which have ſometimes given occaſion for the freſh Exerciſe of my Thoughts on theſe Subjects. And ſince my more important Duties have allowed me ſome Hours of Leiſure and Amuſement, I have now and then added to theſe Papers, which are now grown up to this Bulk and Form.*

The Subjects treated of in the two firſt Eſſays, (viz.) Space, Subſtance, Body *and* Spirit, *have no inconſiderable Influence in adjuſting our Ideas of God and Creatures, animate and inanimate Beings. It is ſtrange that Philoſophers,*

losophers, even in this inlightned Age, this Age of juſter Reaſoning, ſhould run into ſuch wide Extremes in their Opinions concerning Space; that while ſome depreſs it below all real Being, and ſuppoſe it to be meer Nothing; others exalt it to the Nature and Dignity of Godhead. It would be a great Happineſs, if we could all unite in ſome ſettled and undoubted Opinion of this Subject. The Unlearned may ridicule the Controverſy; but Men of Science know the Difficulties that attend it. I make no Pretence to have clear'd them all away; but if I have ſaid any thing here that may ſtrike a Glimpſe of Light into this obſcure Queſtion, I ſhall acknowledge my Felicity.

Body *and* Spirit *are the two only proper Subſtances that we know of; and if their diſtinct Eſſences can be limited and adjuſted in clear Ideas, it will be a happy Clew to lead us into ſome further Knowledge of the viſible and inviſible World, and will give us a more particular and diſtinct Acquaintance with* Human Nature, *which is compounded of Matter and Mind.*

There are few Studies ſo worthy of Man as the Knowledge of Himſelf. Many Advantages in moral Sciences attend a right Notion of the Union of Soul and Body, the Senſations, the Appetites, the Paſſions, and various Operations which are derived thence. This hath been, I confeſs a favourite Employment of my Thoughts: Whether I have ſucceeded in any of my

my Meditations or Sentiments on this Subject, I must leave the Reader to judge.

I cannot pretend that all my Opinions in these Matters are exactly squared to any publick Hypothesis. From the Infancy of my Studies, I began to be of the Eclectick *Sect. Some of these* Essays *are founded on the* Cartesian *Doctrine of* Spirits, *though several Principles in his System of the* Material *World could never prevail upon my Assent; and what other Opinions of that Philosophy relating to the* Phœnomena *of Heaven and Earth I had imbibed in the Academy, I have seen Reason to resign long ago at the Foot of Sir* Isaac Newton. *But as the two Worlds of* Matter *and* Mind *stand at an utter and extreme Distance from each other, so the Weakness of the* Cartesian *Hypothesis of* Bodies *and its utter Demolition, does by no means draw with it the Ruin of his Doctrine of Spirits.*

I am not so attach'd to this Scheme, nor do I plead for it as a Doctrine full of Light and Evidence, which has no Doubts and Difficulties attending it: After all my studious Enquiries into this noble Subject, I am far from being arrived at an Assurance of the Truth of these Opinions. The speediest way to full Assurance in any Point, is to read only one Side of a Controversy: These are generally the confident and infallible Dictators to Mankind; they see no Difficulty, and admit no Doubt. I must confess I have follow'd a different Method of Study, and therefore I have so few Indubitables

among my philoſophical Acquirements. But though I cannot pronounce Certainty *on my Sentiments on this Argument, yet I have been loth to renounce and obliterate them at once, and to leave ſo vaſt a Vacancy among my intellectual Ideas, unleſs I could have found ſome tolerable Syſtem of the* Nature and Operations of our Souls *to put in the room of it, which was attended with leſs or fewer Difficulties. But this I have ſought in vain both in my own Meditations, and among the Works of the Learned. An* inextended Spirit, *without proper Proximities to Place or Body, is a hard Idea to us, while we dwell in this incarnate State among Shapes and Matter, Place or Motion; but a* Spirit *that is* extended, *or a Thinking Power with Dimenſions and Shape, with local Parts and Motion, appears to me ſtill a harder Idea, and gives greater Pain and Difficulty to the Mind that will purſue any Poſition through all its Train of Conſequences.*

I think I have no Partiality for the Name of the French *Philoſopher: But let every Man who has ſent any new Beams of Light into the World of Nature, and taught us better to underſtand the Works of God, have the juſt Debt of Honour paid to his Memory. Let the illuſtrious Name of* Newton *ſtand higheſt in the Sphere, and without a Rival. But let thoſe alſo who have open'd the Way for ſo great a Light to ſhine, by removing the Rubbiſh and Darkneſs of former Ages, have their*

their proper Monuments of Praiſe. Had not a Des-Cartes *riſen up in the World and trac'd his Way before, I much queſtion whether Sir* Iſaac Newton *had ever made ſo vaſt and ſublime a Progreſs in the Diſcovery of his Wonders to this enlighten'd Age. If I can pretend to any Freedom of Thought in my little Sphere of Inquiry after Truth, I muſt aſcribe the Original of it to my reading the firſt Book of* Des-Cartes's *Principles in the very Beginning of my Studies, and the familiar Comments which I heard on that Work. That great Man, in ſome of his Writings, pointed out the Road to true Philoſophy, by Reaſon, and Experiment, and Mathematical Science; though he did not ſteddily purſue that Track himſelf, in his own philoſophiſing on corporeal Things.* Gaſſendus *and the Lord* Bacon *went a little before him; Mr.* Boyle *followed after; and they all carried on the noble Deſign of freeing the World from the long Slavery of* Ariſtotle *and ſubſtantial Forms, of occult Qualities, and Words without Ideas. They taught Mankind to trace out truth by Reaſoning and Experiment; and they agree to leave her to ſtand on her own Foundations, without the ſupport of an* ipſe dixit. *The preſent Age, in all their boaſted and glorious Acquiſitions of Knowledge, owe more to theſe Gentlemen, than I have found ſome of them willing to pay.*

Mr. Locke *is another illuſtrious Name. He has proceeded to break our philoſophical Fetters, and to give us further Releaſe from*

the Bondage of ancient Authorities and Maxims. I acknowledge the Light and Satisfaction which I have derived from many of his Works. His admirable Letter of Toleration *led me as it were into a new Region of Thought, wherein I found myſelf ſurpriſed and charm'd with Truth. There was no Room to doubt in the Midſt of Sun-beams. Theſe Leaves triumphed over all the Remnant of my Prejudices on the Side of* Bigotry, *and taught me to allow all Men the ſame Freedom to chuſe their Religion, as I claim to chuſe my own. Bleſſed be God that this Doctrine has now taken ſuch Root in* Great Britain, *that I truſt neither the Powers nor the Frauds of* Rome, *nor the Malice, Pride, and Darkneſs of Mankind, nor the Rage of Hell ſhall ever prevail againſt it.*

His Treatiſes of the Original of Government, *and of* Education, *have laid the Foundations of true Liberty, and the Rules of juſt Reſtraint for the younger and older Years of Man. His Writings relating to* Chriſtianity, *have ſome excellent Thoughts in them; tho' I fear he has ſunk ſome of the divine Themes and Glories of that Diſpenſation too much below their original Deſign.*

His Eſſay on the Human Underſtanding *has diffuſed fairer Light through the World in numerous Affairs of Science and of Human Life. There are many admirable Chapters in that Book, and many Truths in them, which are worthy of Letters of Gold. But there are ſome Opinions*

in

in his Philoſophy, eſpecially relating to Intellectual Beings, *their Powers and Operations, which have not gained my Aſſent. The Man who hath labour'd to lead the World into Freedom of Thought, has thereby given a large Permiſſion to his Readers to propoſe what Doubts, Difficulties or Remarks have ariſen in their Minds, while they peruſe what he has written. And indeed ſeveral of the* Eſſays *which are publiſhed (beſides the* XIIth, *which bears that Title) are the Fruits of ſuch* Remarks, *as will be eaſily obſerved in the peruſal of them.*

The Eſſays *on the various Works of Nature in the upper and lower Parts of the Creation, in the Sun and Stars, in Plants and Animals, were written at firſt with a Deſign to entertain the politer Part of Mankind, whoſe Circumſtances of Life indulge them much Leiſure and Eaſe, and who ſearch not very far into the hidden Principles of Nature, and their abſtruſe Springs of Operation. I know the Philoſophers of the preſent Age have carried their Enquiries to great Lengths, beyond any of my Meditations: Yet perhaps theſe may be ſo happy as to lead thoſe Perſons who know them not, and who ſearch no further than I do, in an exalted Idea of the Wonders of divine Wiſdom in the Heavens and the Earth, the Vegetable and the Animal World. Perhaps alſo they may ſerve to give ſome profitable Amuſement to their leiſure Hours, as the Compoſure of them hath given to me.*

[*And here I would take notice, that in the Second* Edition, *in the Firſt and Second* Sections

of

of the Ninth Eſſay, *and the* Appendix *thereto, I have added a few Sentences to expreſs my Thoughts more clearly, concerning the everlaſting but uniform Agency of God on the Material World, in the Production of Plants and Animals; and to guard againſt thoſe Objections which the Rev. Dr.* Denne *offers with great Civility in his* Preface *to his late ingenious Sermon of the* Wiſdom of God in the Vegetable Creation, *and acknowledge it was my want of greater Expreſſneſs which might lead him into a Miſtake of my Sentiments. Tho' we both purſue the ſame End,* (viz.) *the Diſplay of the Wiſdom of God in the Animal and Vegetable Worlds, yet I beg Leave to make uſe of a very different Opinion as the Means of attaining it.*]

If I were to make Apologies for publiſhing any Thing of this Kind to the World, I would ſay that the chief Part of theſe Subjects are not beneath the Notice and Enquiry of any Profeſſion and Character whatſoever. If I am charged with repeating the ſame Thing ſeveral times, I would reply, that it is perhaps introduced on different Occaſions, or ſet in a different Light, or at leaſt, to ſpeak plainly, when I had wrote one, I had forgot the other, theſe Papers being written at many Years Diſtance. And this may ſerve alſo among Perſons of Temper and Candor to apologize for ſmall Miſtakes, if there ſhould be any appearing Oppoſition between my Expreſſions in different Eſſays, which were written in diſtant Parts of Life. I hope

none will be found ſo groſs, but may be well reconciled by a candid Reader.

Should I be told that other Writers have ſaid the very ſame Things which I have done, and in a much better manner? I confeſs I know it not; for tho' I now and then look into modern Books of Philoſophy, yet there are many which I have never ſeen, having not ſufficient Time to peruſe them; and I am perſuaded ſome of theſe Eſſays were framed long before thoſe very Works, whence ſome Perſons may imagine I have borrowed ſeveral of my Reaſonings.

If there be any Hint of Thought amongſt them all, that may aſſiſt the Reader in his Conceptions of God or himſelf, of natural and divine Things, let him correct or retrench, let him refine, let him alter or improve it as he pleaſes, and make it his own, that I may thank him for it as a new Acquiſition: And let him renounce whatſoever he finds diſagreeable to Truth, Reaſon or Religion; always remembering that the ſureſt way to find out Truth, is not by a diſputing Spirit, and ſeeking out all poſſible Objections, but by an inward Love of Truth, by impartial Meditation and Search after clear Ideas.

Perhaps I might be a little pleaſed with ſome of theſe Philoſophemes in the warmer Years of Life; but I look upon them now with much Indifference, as Things afar off, and which have paſſed in another Century. I review them as it were with the Eye of a Stranger, rather than with the Fondneſs of a young Author. What Darkneſſes hang about them, I ſhould be glad to

ſee

ſee ſcatter'd by the Rays of Truth, or to hear of a much clearer and fairer Hypotheſis of the World of Spirits *ſubſtituted in the room of all that I have written, and I ſhould embrace it with new and ſincere Delight.*

But if we can know nothing further of our Souls, *i. e. of* Ourſelves, *in this embodied and obſcure State, than meerly to ſay* we are Thinking Beings, *if it is not allow'd us to be further acquainted with our own Eſſence or our Natural Powers, if we can never find out how our Spirits form their Ideas, or exert their Freedom of Will, how we move our Bodies or change our Relations of Place, it becomes us to lie humble at the Foot of our Maker, the Infinite and Almighty Spirit, and to content ourſelves under our preſent Ignorance. 'Tis happy for us, that this does not affect our moral and more important Concerns: This does not alter our Relations or our Duties to God or our Neighbour, nor make any Inroad upon our divine and everlaſting Intereſts. It would be very pleaſing indeed to walk onward through this dark World, with ſome clear Notions of what we ourſelves are and ſhall be, as well as of the Power that made us; but our incurable Defects in this Sort of Science, ſhall never ſeclude us from his Favour. We may learn to* know the only true God *ſo far as to adore and obey him, without pronouncing concerning the Eſſence of the* Great Unſearchable. *We may* know *him and love him as the Original* Father *of All, and his* Son Jeſus whom he has ſent. This is Life eternal. *And when*

we

we ſhall have travel'd over the Stage of Time, by the Light and Influence of this Knowledge, we ſhall forſake at once theſe Scenes of Mortality and Shadows; we ſhall change this duſky Region for a brighter. Farewel Books, and Diſputes, and dark Notions, and lame Hypotheſes! We enter into the State of unbodied Minds, we are ſurrounded with the Light of Paradiſe, we ſhall ſee ourſelves and our Fellow-Spirits; there we ſhall commence our happy Immortality in thoſe pure and exquiſite Delights of unerring Contemplation, and undecaying Love.

Jan. 17th. 1732-3.

THE TABLE OF THE ESSAYS.

ESSAY I. *A Fair Enquiry and Debate concerning Space* Page 1

Sect. 1. *The Subject explained in general* ibid.

2. *Is Space Something or Nothing?* 3

3. *Is Space a Subſtance?* 4

4. *Is Space created or increated?* 8

5. *Space cannot be God* 11

6. *A Review and Recollection of the Argument* 20

7. *The Original of our Idea of Space, and our Danger of a Miſtake* 23

8. *Space compared to Shadow or Darkneſs* 25

9. *Space unactive and impaſſive* 28

10. *A Re-examination whether Space has any real Properties* 31

11. *An Objection againſt the Nibility of Space anſwer'd* 38

12. *Space nothing real and exiſting, but a meer abſtract Idea* 42

ESSAY II. *Of Subſtance; and of ſolid Extenſion and a Thinking Power, as the two only original Subſtances* 47

Sect. 1. *Mr.* Locke's *Notion of Subſtance conſider'd* ib.

2. *The plain Idea or Notion of Subſtance applied to Mind and Body* 50

Sect.

Sect. 3. *Considerations to support the Application of the Name of Substance to solid Extension and a Thinking Power* Page 54
4. *The Occasions of Mistake on this Subject* 63
Essay III. *Of the Original of our Perceptions and Ideas* 73
Essay IV. *Of innate Ideas, and Propositions, natural and moral* 99
Sect. 1. *The common Opinion well refuted by Mr.* Locke ibid.
2. *In what Sense many Ideas are innate* 101
3. *In what Sense some Truths may be innate* 105
4. *In what Sense some Rules of Duty may be innate* 107
5. *Of the Foundations of moral Virtue, and of a moral Sense or Instinct* 109
Essay V. *An enquiry whether the Soul thinks always* 115
Sect. 1. *Considerations towards the Proof of it* ibid.
2. *Of Dreams, why not remember'd* 120
3. *Mr.* Locke's *Objections answered* 125
Essay VI. *Of the Power of Spirits to move Bodies, of their being in a Place, and removing from it* 133
Sect. 1. *Of the Power of a Spirit to move Matter* ib.
2. *Of Spirits being in a Place, and removing thence* 147
3. *The first Question about the Locality of Spirits answered* 153
4. *Other Objections answered against the Locality of Spirits* 161
5. *The* Ubi *or Whereness of a Spirit* 166
Essay VII. *The departing Soul* 172
Essay VIII. *The Resurrection of the same Body* 183
Essay IX. *Of the Production, Nourishment, and Operations of Plants and Animals* 196
Sect. 1. *Creatures produce their own Kind* ibid.

Sect.

The TABLE.

Sect. 2. *The Laws of Nature ſufficient for the Production of Animals and Vegetables* Page 202

An Appendix in Oppoſition to the Opinion of all Animals and Plants being contain'd in the firſt Plant and Animal. 209

3. *Of the Nouriſhment and Growth of Plants* 217

4. *Of the Nouriſhment and Growth of Animals* 223

5. *An amuſing Digreſſion concerning the Changes of Matter* 229

6. *The ſimilar Operations of Plants and Animals* 237

7. *Of the Principles of Action in Brutes and Men* 242

ESSAY X. *Of Sun-Beams and Star-Beams* 250

Sect. 1. *Is the Æther beyond our Atmoſphere a meer Vacuity?* ibid.

2. *Doth the World grow bigger or leſs?* 255

ESSAY XI. *On ſome Metaphyſical Subjects* 261

Sect. 1. *Of Nature and Eſſence* ibid.

2. *Of Matter and Form* 267

3. *Of the different Senſes of the Word* Nature 272

4. *Of Creation or Conſervation* 274

ESSAY XII. *Remarks on ſome Chapters of Mr.* Locke's *Eſſay on the Human Underſtanding* 277

Sect. 1. *Of ſenſible Qualities, and particularly of Colour* ibid.

2. *Of Succeſſion and Duration* 281

3. *Of Infinity* 284

4. *Of Power* 285

5. *Whether Liberty can be aſcribed to the Will?* 287

6. *Of complex Ideas and mixed Modes* 291

7. *Of Identity and Diverſity* 294

PHI-

PHILOSOPHICAL
ESSAYS, &c.

ESSAY I.

A fair Enquiry and Debate concerning SPACE, *whether it be Something or Nothing, God or a Creature.*

SECT. I.

The Subject explained in general.

WOULD any one imagine, that ſo familiar an Idea as that which we have of *Space*, ſhould be ſo abſtruſe and myſterious, ſo difficult and unaccountable a Thing, as that it ſhould be doubtful and undetermined to this Day, among the Philoſophers even of

this knowing Age, *what Space is*; whether it be a Subſtance or Mode, God or a Creature, Something or Nothing.

The common Idea which all Mankind have of it, ſeems to be much the ſame, *viz. Extenſion void of Matter or Body, and capable of receiving or containing Matter or Body.* This Space, when 'tis thus conſider'd as *empty*, by the Learned is uſually called *Vacuum* or void; when 'tis conſider'd as *filled* with Body, the Learned have ſuppoſed it to be *Space* ſtill, and then it is called *Plenum* or full. Whether there be a *Vacuum* or void Space is now no longer doubted among Philoſophers, it having been proved by Sir *Iſaac Newton*, and others, beyond all Contradiction; and every one agrees to it. Whether it ſhould be called *Space* when 'tis full, ſhall be afterwards conſidered.

Void Space is conceived by us as ſcatter'd thro' all the World between Bodies, as interſperſed thro' all the Pores of Bodies, and as reaching alſo beyond all the Worlds that God has made and extended on all Sides without Bounds. And as theſe Ideas ſeem plain and eaſy, ſo there is no Difference between the Philoſopher and the Ploughman in this their general and common Conception or Idea of it. But the grand Enquiry is, *What is this Space?* Let us ſearch the Subject a little.

Space is either Something or Nothing: If Something, it is either a meer Idea in the Mind, or ſomething exiſting without. If it exiſt

exiſt without us, 'tis a Subſtance or a Mode: If a Subſtance, 'tis created or increated. Let us examine all theſe by Parts diſtinctly.

SECT. II.

Is SPACE *Something or Nothing?*

SUrely one would ſuppoſe that *Space* cannot be a meer Nothing; for it is one of the moſt fundamental Axioms of Science, that *what has no Being, can have no Properties or Powers*; but SPACE ſeems to have Powers and Properties; 'tis long, broad and deep: Can there be any meer Nothing that has three Dimenſions? Space ſeems to have meaſurable Diſtances contained in it, *viz.* An Inch, an Ell, a Mile, a League, a Diameter of the Earth, or a thouſand ſuch Diameters. Is it poſſible that a meer Nothing ſhould reach to ſuch an Extent? It appears to have real Capacity, or a Power to receive and contain Bodies; now if this Capacity be not a meer Nothing, one would conclude *Space* muſt be *Something* real and exiſting, which has ſuch a real Capacity.

Beſides, if two Bodies were placed at twenty Miles Diſtance from each other, and all the Univerſe beſides were annihilated, would not this Space be really twenty Miles long? and would not this Space be called Something, which is of ſuch a Length? Or if Space be not Something, then there is No-

thing between theſe two Bodies; and muſt they not therefore lie cloſe together, and touch one another, if there be nothing between them? Does not this plainly prove *Space* to be *Something?*

Well, if Space be any ſort of *Something*, it muſt either have its Being only in our Minds as a *meer Idea*, or it muſt have an *Exiſtence without us.*

That it cannot be a *meer Idea* of the Mind, is proved by Dr. *Clarke*, becauſe no Ideas of Space can poſſibly be framed greater than finite; yet Reaſon ſhews that Space muſt be infinite. See his Letters to *Leibnitz.*

To which I might add, Space ſeems to have ſuch an Exiſtence as it hath, and to maintain it, whether there were any Mind to conceive it or no; and therefore it ſeems not to be a meer Idea.

This leads us to think therefore, that if Space hath any Exiſtence, it cannot be meerly an Exiſtence in the Mind, but it muſt be ſomething without us.

SECT. III.

Is SPACE *a Subſtance?*

IF Space be ſomething which has an Exiſtence without us, it muſt be either a *Subſtance* itſelf, or a *Mode* or *Property* of ſome Subſtance; for it is moſt evident, that it muſt either ſubſiſt by itſelf, or it muſt ſubſiſt in

in or by ſome other Thing which does ſubſiſt by itſelf. There can be no Medium between Subſiſtence *in and by itſelf*, and Subſiſtence *in and by another*.

Now that Space cannot be a *Mode* or *Property*, I prove thus: If it be a *Mode*, where is the Subſtance in which it is, or by which it ſubſiſts, or to which it belongs? Doth not the Subſtance exiſt whereſoever the Mode is? Did we ever hear of a Mode ten thouſand Miles long, and no Subſtance in all that Length to uphold it?

Or if the Subſtance be co-extended with it, as it muſt be, wherein does this long Subſtance differ from this Property and Mode? Have not this Subſtance and Mode one and the ſame Idea? Are they not the very ſame individual Entity or Being? Have they not the ſame individual Extenſion? and equally ſelf-exiſting, equally real or unreal? If Space be any thing real, and yet a Mode, it looks ſo much like the very Subſtance itſelf by the Properties attributed to it, that I think no Man ſhould ever take it for a meer Mode, unleſs he can tell us how it differs from the Subſtance which ſupports it, and how it depends for Exiſtence on that Subſtance.

O, ſay our Opponents, *Space is a meer Mode, but the Subſtance that ſupports it is utterly unknown, as all Subſtances are.* Happy *Aſylum* for the Learned to retreat to! This Shelter of Darkneſs! this invented Idea of an unknown and unknowable Thing called *Sub-*

ſtance! how well does it ſkreen and hide a modern Diſputant from Light and Argument, when they purſue him ſo cloſe that he has no other Refuge! Yet even this dark Shelter I have endeavoured to break open and demoliſh in the next Eſſay. But let us proceed now in the fair Enquiry, whether Space be a Subſtance or a Mode.

Some Philoſophers, particularly Mr. *Leibnitz*, have fancied *Space* to be a ſort of *relative Mode*, and called it the *Order of Co-exiſtent Beings* or Bodies, which *Order is their general Situation or Diſtance: As Place is the Relation which one particular Body has to the Situation of others, ſo Space is that Order of Situation which reſults from all Places taken together.* Thus, after a manner which is unintelligible to me, they go on to explain their Idea of Space. But how can Space be a meer Order or Mode of Bodies, when itſelf ſeems to have Parts extraneous to all Bodies, both as it is interſpers'd among them in the World, and reaches beyond the Limits of this World alſo? Can Space be the Order of Bodies, when Space is where the Bodies are not? And when Space does not depend for its Exiſtence on the Exiſtence of Bodies, can Space be a Relation of Bodies; when it is and ever would be the ſame Idea, if no Body ever had been, or if all Bodies ceaſed to be?

Or let us put the Argument thus: Space, if it be a *Mode of Being*, muſt either be an *abſolute*,

abſolute, or a *relative Mode*; but it cannot be either of theſe. For all *abſolute Modes* want ſome Subject proper for them to inhere in, or to ſupport them in Being: All *relative Modes* or *Relations* require ſome other Being, or ſome Subject to which they muſt relate: But Space neither wants any Subject to inhere in, or relate to: It wants no other Being that we can conceive to make it exiſt. Try to ſuppoſe all Beings annihilated, yet you cannot conceive Space to be annihilated: It ſeems to be obſtinately exiſtent and ſelf-ſubſiſting: You cannot nullify it, even in Thought, tho' you ſhould nullify all other Subſtances, Body and Mind, with all their Modes. Surely this can never be a Mode of Being; for if it has any real Subſiſtence at all, *it ſubſiſts of itſelf*, which is the firſt Character and Property of a Subſtance.

Beſides, it ſeems to have the other Character of *Subſtance* alſo; for as it ſubſiſts of itſelf, *i. e.* it *wants no created Being to ſupport its Exiſtence*, ſo itſelf ſeems to be the proper Subject of many Properties, Modes or Accidents, ſuch as were juſt mentioned before, *viz.* Length, Breadth, Capacity, *&c.* nor do they need any other *Subſtratum* to uphold them. Now theſe are the known and agreed Characters of Subſtance among the Learned, *viz. Subſtantia eſt quod per ſe ſubſiſtit, (i. e. nulla re Creata indiget ad ſubſiſtendum) & ſubſtat accidentibus.*

Even a very Learned Writer in his Diſcourſes on this Subject, in his Letters to *Leibnitz*, uſes but feeble Reaſoning to prove that Space is not a Subſtance, *(viz.)* "That "infinite Space is *Immenſitas*, not *Immenſum*; "whereas an infinite Subſtance is *Immenſum*, "not *Immenſitas*: therefore Space muſt be a "Property.". Now I might uſe this very Language to prove that Space is a Subſtance, and ſay, Is not Space the *Immenſum* itſelf, if it has any thing real in it? We have only a meer Denial of it, without any Argument. Do we not generally ſay, Space is immenſe, or Space has Immenſity belonging to it? Space is properly the *Immenſum*, and what forbids it to be a Subſtance? And indeed if Space has any thing of a real and poſitive Exiſtence without us, all the Arguments that ever I read to diſprove it to be a Subſtance, carry no Force at all with them, and ſeem to be meer Aſſertions, not only without Reaſon, but contrary to it.

SECT. IV.

Is SPACE *created, or increated?*

IF it be allowed then that Space is a Subſtance, 'tis either *created* or *increated*. Surely it cannot be a created Subſtance, becauſe we cannot conceive it poſſible to be created, ſince we cannot conceive it as non-exiſtent and creable, which may be conceived concerning

concerning every created Being. Nor can we conceive it properly as annihilated or annihilable, which we may ſuppoſe of every Creature. In ſhort, if it be a Subſtance, ſhall I dare venture to ſpeak it? it appears to be God himſelf. Mr. *Raphſon* a great Mathematician has written a Book on this Theme, *De Spacio Reali*, wherein he labours to prove that this *Space* is God himſelf, going all along upon this Suppoſition, that Space is and muſt be ſomething real; and then his Reaſon cannot find an Idea for it below Godhead. And indeed if Space be a real Thing exiſtent without us, it appears to bid fair for Deity; for the ſuppoſed Perfections and Proprieties of it are ſuch as ſeem to be infinite and divine. As for Inſtance:

If Space has Length, Breadth, Depth, 'tis *infinite* Length, Breadth and Depth: If it has Capacity, 'tis an *unbounded* or an *infinite* Capacity. Nor can we poſſibly conceive of it beyond the Univerſe, but as *immenſe* or *unmeaſurable*: it ſeems to be *Omnipreſent*, if it penetrate all Things; and it has ſeveral other appearing Properties of Godhead.

We have alſo an Idea of it as *Eternal*, and *Unchangeable*; for we cannot conceive that it begun to be, ſince we cannot conceive it as having ever been non-exiſtent, or any otherwiſe than now it is: It connot be created nor annihilated. It ſeems to contain what Exiſtence it has in the very Idea, Nature or Eſſence of it; (which is one Attribute of GOD, whereby

whereby we prove his Exiſtence.) It appears therefore in this View to be a *neceſſary* Being, and has a ſort of *Self-exiſtence*, for we cannot tell how to conceive it not to be.

It ſeems to be an *impaſſible*, *indiviſible*, and *immutable* Eſſence; it looks like an *all-pervading*, *all-containing* Nature, an *all-comprehending Being*. What are all theſe but Attributes of Godhead? and what can this be but God himſelf?

And how agreeable are theſe Properties of Space (ſay ſome Perſons) to the Attributes of God in Scripture, taken in the moſt vulgar and literal Senſe? It has a Being like God in *Heaven*, *Earth* and *Hell*, diffuſed thro' all, as *Pſal.* cxxxix. deſcribes the Omnipreſence of God: And as the Propeht repreſents God ſpeaking, *Do not I fill Heaven and Earth, ſaith the* LORD? *Jer.* xxiii. 24. *Heaven, and even the Heavens of Heavens*, ſaith *Solomon, cannot contain him*, 2 Chron. vi. 18. Nor does the Idea of Space diſagree with St. *Paul*'s Account of God, *Acts* xvii. 28. *He is not far from every one of us, for in him we live and move and have our Being.* And accordingly ſome Philoſophers (as is before mentioned) have written to prove that *Space* is a real Being, and that this *Space is God.*

SECT.

SECT. V.

SPACE *cannot be* GOD.

BUT is not this too groſs an Idea of the Deity, and unworthy of him? I am afraid of thoſe natural and neceſſary Conſequences which ſeem to ariſe from the Idea of real *Extenſion* attributed to God, becauſe they ſeem ſo very frightful and abſurd. We can hardly mention them indeed with a Preſervation of that Reverence of Language, and that ſacred Veneration of Soul that is due to the Majeſty of Heaven and Earth; and this is a ſort of preſumptive Argument againſt them, *viz.* That if they are Truths, they are ſuch a kind of horrendous Truths, that a devout Creature ſhudders to hear them in a literal manner attributed to his Maker. Yet if we will manifeſt their Abſurdities, we are forced to pronounce a few of them.

1. If Space be God himſelf, then all Bodies are ſituated in God, as in their proper Place; then every ſingle Body exiſts in part of God, and occupies ſo much of the Dimenſions of Godhead, as it fills of Space; then an Elephant, or a Mountain, a Whale, or a wicked Giant, have more of the Eſſence or Preſence and Goodneſs of God with them, than the holieſt or beſt Man in the World, unleſs he be of equal Size.

2. If

2. If Space were God, then the Divine Being, tho' in its Whole it be unmeaſurable, yet hath Millions of Parts of itſelf, really diſtinct from each other, meaſurable by Feet, Inches, Yards, and Miles, even as the Bodies are which are contained in it: And according to this Notion it may be moſt properly ſaid, that one Part of God is longer than another Part of him, and that twenty-five Inches of the Divine Nature, long, broad, and deep, will contain above two Foot of ſolid Body, *&c.* which Predications ſeem at leaſt very harſh, they grate with Pain upon the Ear, and are even offenſive to the Underſtanding, if they be not abſolutely abſurd and impoſſible in the Nature of Things.

Nor is it to any purpoſe for an Objector to ſay, that Space or infinite Extenſion has properly no Parts; for we have as clear an Idea, and indeed much clearer, of the ſeveral Parts of Space near us and round about us, than we have or can have of the whole poſitively infinite Space, if I may ſo expreſs it, of which we finite Creatures have no proper Idea: Our Idea of *infinite Space*, ſuch as it is, is made of finite Spaces, or Parts of Space in a perpetual Addition.

Nor can it be deny'd that Space has Parts, on a Pretence that theſe Parts are not actually ſeparable; for even in a Body we conceive clearly of the ſeveral diſtinct Parts of it, without conſidering whether they be ſeparable or no. Suppoſe Body to be infinite, and

ſuppoſe

ſuppoſe it to be perfectly ſolid, and as uniform as Space is, yet 'tis very evident that we can conceive diſtinct Parts in it, without conceiving them ſeparated or ſeparable. The Ideas of *Separation* or *Separability* are not neceſſary to the Idea of the *Parts* of Space, which are conceived as ſeveral leſſer Spaces or Extenſions co-exiſtent in Time, but really diſtinct from each other, whether adjacent or diſtant.

3. Another hard Conſequence of ſuppoſing *Space to be God*, is this. Then every Part of this Divine Space will contain Divine Perfections in it compleat, or only ſome Part of each of them; if only ſome Part of each of them, then each Part of the Space, whether an Inch or a Mile ſquare, has a Degree or Share of Wiſdom and Power, Holineſs and Goodneſs, in Proportion to its Dimenſions; which Poſition is too abſurd to be allowed. We muſt be forced to allow then, that every Part of Space contains all theſe Divine Attributes or Perfections in it compleatly; and if it be ſo, then not only every Mile, but every Yard and Ell, and every Inch of Space, is All-wiſe and All-holy, Almighty and Gracious; for every Inch of Space is a Part of the Subſtance or Eſſence of God, if Space be God himſelf. Beſides, if every Inch of Space contain compleatly theſe Divine Perfections, then there ſeem to be ſo many compleat Wiſdoms and Powers, *i. e.* in reality ſo many All-wiſe and Almighty Beings, as there are Inches

Inches or minuteſt Parts of Space; for every Part of *Space* ſeems to be as much independent on any other Part, as one Part of *Matter* is independent on another Part: And if ſo, then every Part of Space is an Independent, All-wiſe and Almighty Being; and inſtead of One God we ſhall have Millions.

To conclude; if Space be a Subſtance, it muſt be the one Divine Subſtance of infinitely long and broad Perfections; or elſe all the Parts of it muſt be leſſer Divine Subſtances united in one. What manifold and ſtrange Abſurdities, or at leaſt ſeeming Abſurdities and frightful Propoſitions, will ariſe from this Notion of the Divine Being?

Object. Perhaps it will be ſaid, that *this Space is not God himſelf, but only his Immenſity; now his Immenſity is not properly ſaid to be All-wiſe and Holy and Mighty, tho' God himſelf be ſo.*

Anſ. We have already proved that Space cannot be a *Mode* or Property; but that, if it be any thing, it muſt be a *Subſtance.* Therefore, if it be any thing Divine, 'tis not meerly the Divine Immenſity, or an Attribute of God; but 'tis his Eſſence or Subſtance, 'tis the real *Immenſum*, 'tis God himſelf.

This appears further evident, if we conſider, that we muſt neceſſarily ſuppoſe the All-wiſe and Almighty Subſtance or Eſſence of God to be co-extended with his Immenſity; otherwiſe you make infinite Extenſion, which

which you call a Property or a Mode, to exiſt beyond and without the Subject of it; which is abſurd enough. And therefore Sir *Iſaac Newton* in his famous *Scholium*, at the end of his *Mathematical Principles*, where he ſuppoſes God to be extended, is conſtrained to allow, *that* God *is preſent every where by his Subſtance*; *for*, *ſaith he*, *Power without Subſtance cannot ſubſiſt*; and I am ſure then 'tis ſufficiently evident that Immenſity or Space extended beyond the Subſtance, can have no Subſiſtence.

Beſides, is not this Immenſity or *Space* the very Thing you conceive of as the *Subject* of the Modes of Eternity, Capacity, Comprehenſion, Self-exiſtence, Unchangeableneſs, *&c. i. e.* as the *Subſtance* itſelf? Is it not this *Space* which you conceive of as a ſelf-ſubſiſting and unannihilable Being? and what is that but a moſt ſubſtantial Idea?

Tho' ſome of our modern Philoſophers renounce all Knowledge of Subſtances, while they maintain the Neceſſity of them as a *Subſtratum* for Modes; yet it ſeems to me that this is one chief Reaſon which has tempted many of them to ſuppoſe both God and all other Spirits to be extended, that they may have a ſort of *Subſtratum* or Subject for the Powers of thinking and willing, or the Modes of Knowledge and Volition to ſubſiſt in.

Thus it appears, ſo far as I can ſee, that if Space be any thing in or of God, 'tis the very

very Subſtance of God. However, even upon the Suppoſition of this laſt Objector, we may at leaſt infer thus much, that if Space be but the Immenſity of God, then God is whereſoever Space is, and his Eſſence conſiſts partly at leaſt in this immenſe Space; and moſt of the Inferences which I drew from the Suppoſition of *Space being God*, are juſt and natural, if Space be God's Immenſity, however harſh and abſurd they may be. Let me juſt mention another Argument to prove that Space is not God.

4. It hath been proved by ſome Philoſophers, *Des Cartes*, Dr. *Cudworth*, Mr. *Norris*, and others, and that with a good Degree of Evidence, that a Spirit is not extended; and then God, who is the moſt perfect Spirit, includes no Idea of Extenſion in the Notion of him. The moſt eſſential, obvious, and prime Ideas of God, are of a ſpiritual Kind, *(viz.)* Conſciouſneſs, Thought, Wiſdom, Knowledge, Will, active Power, Goodneſs, the Firſt Cauſe of All, *&c.* Now none of theſe imply *Extenſion*, or have any need of Parts extraneous to each other. Yet if this extended Space be the Divine Subſtance, 'tis very amazing, that the Properties of Deity ſhould have no apparent Need of ſuch a Subſtance, and that this Subſtance ſhould have no conceivable Connexion with its moſt eſſential and neceſſary Properties and Powers. Who can point out to us any Influence that Extenſion or Space can have towards Thinking?

ing? towards Wiſdom or Power? towards Holineſs, Goodneſs or Faithfulneſs? There is no conceivable Connexion in the Ideas. They are not only diſtinct but ſeparable. Baniſh perfect Wiſdom and Power from your Thoughts, and if poſſible, annihilate them in Thought; yet *Space* or *Extenſion* remains: Baniſh *Extenſion* from your Thoughts, yet *perfect Wiſdom* and *Power* remain. We cannot conceive of Wiſdom, Goodneſs, Power, as inherent in Space; nor can we conceive of Space as being wiſe, holy, powerful and good. There doth not ſeem to be any poſſible Connexion in our Ideas of theſe different Extremes, nor any real Union or Connexion in the Nature of Things, ſince we can baniſh either of them in our Thoughts, and yet the other remains in the full Idea of it. Can one then be a Property of the other?

Let us enquire again, If God be infinite Space, what can this Space do toward his Creation or Government of the Univerſe? Does Proximity enable him to know or to move the corporeal World? he cannot touch nor be touched. He is ſuppoſed to penetrate all Bodies, but this very Penetration does nothing toward his Conſciouſneſs, or his Movement of them. His knowledge and Motive Power do not act toward Bodies by Penetration of them, and there are two plain Reaſons for it. (1.) Becauſe God knew the World as well before he made it, and before he is ſuppoſed to penetrate it, as he does now; and

he cauſed it at firſt to ariſe into Being in all its Motions, without a prior Penetration of it. (2.) Becauſe created Spirits neither acquire their Knowledge or their Motivity of Bodies by this ſuppoſed Penetration, as I have ſhewn in *Eſſay* VI. The Power of God to know and move Bodies ariſes therefore from ſome ſuch ſuperior and unknown Property of his Nature as belongs to Deity alone, who can create them.

Again: Does every Act of God, every Thought, and every Volition about an Atom or a Fly, employ the whole immenſe Extenſion of Space? Doth a Thought of the pureſt, the moſt ſpiritual and abſtracted Objects, imply or require any Uſe of Length and Breadth in it? Does the whole infinite Extenſion work in every Thought? Or indeed what has immenſe Length and Breadth to do at all toward Thinking or Willing? Let us firſt find what the ſuppoſed finite Length and Breadth of a common Spirit can do towards its Ideas and Volitions, and then I ſhall be more eaſily perſuaded that infinite Length and Breadth have a proportionable Influence upon infinite or divine Thinking.*

To

* It would be endleſs to run over the Arguments which have been brought by many Writers, againſt the Power of *Extenſion*, as well as againſt the Power of *Matter* to think. I would only mention here what ſeems to be the Reſult of Dr. *Clarke*'s long Conteſt with *Mr. Collins*, to prove that *Matter* cannot think, and apply it more effectually to *Extenſion*. If Extenſion has the Property of Thinking,

To ſum up the whole Matter; we have endeavour'd by Reaſoning to trace out *what is Space*, and we ſeem to have found it cannot be a *meer Nothing*, becauſe it appears to have real Properties; it cannot be a *Mode of Being*, becauſe it ſeems to carry in it an Idea that ſubſiſts of itſelf, tho' we ſhould nulify all other Beings in our Thoughts; and therefore it muſt be a *Subſtance*: And yet if it be a *Subſtance*, it cannot be a *created Subſtance*; becauſe we cannot conceive it creable or annihilable; and therefore it carries with it an Idea of neceſſary Exiſtence; and beſides this Idea of neceſſary Exiſtence, it ſeems to have ſeveral other Properties of *Godhead*, *viz.* Immenſity or Omnipreſence, Eternity, *&c.*

And yet ſo great is the Abſurdity of making the *bleſſed God* a Being of infinite Length, Breadth and Depth, and of aſcribing to him Parts of this Nature, meaſurable by Inches, Yards and Miles, and commenſurate to all particular Bodies in the Univerſe with other unhappy Conſequences, that I cannot ſuffer myſelf to aſſent to this Notion, that *Space is*

Thinking, every Part of Extenſion muſt either have that Property in itſelf, or muſt do ſomething towards it in the Whole: As for Inſtance, If Body has Motion, every Part of that Body has Motion in itſelf; or if a Surface be round, every Part of that Surface doth contribute ſomething toward that Roundneſs: But every Part of Extenſion or Space doth not think; this would make innumerable Spirits; nor doth every Part do any thing toward it; for Thought is ſimple, and not made up of Parts; and therefore a Spirit muſt be quite another Thing, even a Being which has no Parts, no Extenſion.

God: And yet the ſtrongeſt Arguments ſeem to evince this, that it muſt be *God*, or it muſt be *Nothing*.

SECT. VI.

A Review and Recollection of the Argument.

BUT whither has this Track of Reaſoning led me? What is this moſt common and moſt ſtrange Thing which we call *Space* at laſt? This Wonder of Nature, or this imaginary Being? This real Myſtery, which is ſo univerſally known, and ſo utterly unknowable? Is it neither Nothing nor Something? Is it neither Mode nor Subſtance? Is it neither a Creature nor God? That's impoſſible: Surely it muſt be ranked under one of theſe Names: All theſe can never be renounced and denied concerning *Space*: That would be moſt abſurd indeed. What have we learnt then by all this Train and Labour of Argument, but the Weakneſs of our own Reaſoning? We ſeem to be urged on every Side with huge Improbabilities, or glaring Inconſiſtencies: We are loſt and confounded in the moſt familiar and common Things we can ſpeak of: There is ſcarce an Idea more univerſal and familiar than that of *empty Space*; all Mankind ſeem to agree in their Idea of it: And yet after all our Philoſophy and Toil of Reaſoning, ſhall it be ſaid that we know not whether it be a *meer Nothing*, or whether it be the true and *eternal God*?

Fruitleſs

Fruitleſs Toil indeed, and aſtoniſhing Ignorance! Puzzling Difficulties attend the Argument on every ſide, and a ſhameful Perplexity and Darkneſs hangs heavy upon the boaſted Reaſon of Man, while he is labouring with all the Powers of his Soul to reſolve this entangled Theme, We enter into the Abyſs of *Space*, infinite and eternal *Space*, and our Thoughts are loſt and drowned in it.

Let us lie ſtill here and muſe a little, and give a Looſe to our Wonder and our Shame. Are the eternal God and a meer empty Nothing ſo near akin to one another, that we cannot ſee the Difference between them? that we are not able to tell whether *Space* be God, or whether *Space* be nothing?

This we know and are ſure of, upon the moſt ſubſtantial and uncontroulable Proofs and Evidences, that there is a Firſt Cauſe and Mover of all Things; there is a ſelf-exiſtent being which needs no Cauſe; and there is an eternal and all-wiſe Mind: There is a Conſcious and Almighty Power which made all Things; *There is a God.* He is the Supreme Subſtance, the moſt neceſſary and *ſubſtantial* of all Beings, as being at the greateſt Diſtance from *Nihility* or Nothing. Our Belief of this Doctrine is too well founded, and too ſtrongly ſupported to be ever weaken'd by any airy Debates about empty Space. And yet has this empty Thing, or rather this empty Nothing, ſurnamed *Space*, ſuch ſort of Properties and Powers as to reſemble God-

head? Are the wideſt Extremes ſo near together? Is a meer Non-entity ſo like the infinite Being, the moſt perfect Subſtance, in any Properties, that we cannot diſtinguiſh the one from the other? Can the Abſence of all Things or an *empty Nothing*, ever look like ſo *ſubſtantial a Being*, as to be miſtaken for God? or can the great God, in any Views or Aſpects, ever appear to be ſo thin, ſo ſubtile, ſo empty and unſubſtantial a Thing as to look like Nothing? What ſurprizing Shame ſhould ſeize upon our Underſtandings, our vain and conceited Underſtandings, at ſuch a Thought as this, that even Philoſophers cannot agree and inform us certainly whether *Space* be God or Nothing! Tho' we are aſcertained by many Demonſtrations, that the Great God has a moſt ſubſtantial and eternal Exiſtence, yet we ſeem at a Loſs to determine whether this empty Thing called *Space* be not this *God*.

Let our Reaſon bluſh and hide its Head, and lie abaſed for ever at the Foot of the Divine Majeſty. This ſtrange Theatre of Argument, this endleſs War of Words and Ideas, throws a World of Confuſion and Abaſement upon the proudeſt Powers of Mankind. It ſeems to ſpread a Scene of Triumph for *God* over the vain Creature *Man*, and all his boaſted Acquiſitions of Knowledge, that he hardly knows the higheſt and the beſt of Beings from an imaginary Shadow of Being, an empty Nothing; that tho' in ſome Views

Views he is abſolutely certain that God is the ſupreme Subſtance, and has the higheſt and ſtrongeſt Title to Exiſtence and Being; yet in other Views and Enquiries he cannot ſtrongly and boldly diſtinguiſh the Creator of all Things from a meer Non-entity, which in ſome Senſe is infinitely below the Character or Idea of the meaneſt Duſt or Atom of the Creation. Bleſſed God, forgive all the Vanity and Conceit of our Reaſoning Powers, all our fooliſh and unworthy Apprehenſions concerning thy Majeſty; ſcatter theſe Shadows of thick Darkneſs, lead us out of this Labyrinth of groſs Ignorance and Miſtake, and help us to make our Way thro' this Abyſs of Night, thro' this endleſs Circle of Perplexity. Shew us thyſelf, O God our Maker, and teach us what thou art, that we may adore thee better; nor ſuffer us to wander in this thick Miſt, wherein we can ſcarce diſtinguiſh thee from that which has no Being.

SECT. VII.

The Original of our Idea of SPACE, *and our Danger of a Miſtake.*

COME then, my Soul, let us make one Effort more, and try to recover ourſelves. May we not ſuppoſe, that in this imperfect State wherein the Soul is united to a Body, it is too ready to be impoſed upon thereby many Ways? Under the Influence of

this Union to Matter, 'tis eaſily perſuaded to attribute Corporeal Ideas, ſuch as Length and Breadth, to a Spirit, and even to God the Infinite Spirit, becauſe the Soul is continually converſant with them; it is beſt acquainted with theſe bodily Ideas, and is tempted to imagine that no real Being can exiſt without them.

Sometimes the Soul dwelling in Animal Nature, and under the Power of Imagination, miſtakes a *ſubſtantial Being* for *meer Nothing*, and ſometimes it miſtakes *Nothing* for a *ſubſtantial Being*: And indeed this is the very firſt Way whereby all Men gain the Idea of *Space*, the Subject of our preſent Debate. We ſee a Room which is full of Light and Air, which are real *Bodies* or *Subſtances*, and we imagine there is *Nothing* in it; and then we call this Nothing *void* or *empty Space*, and fancy this empty *Space* to be broad, and long and deep, to reach from Wall to Wall, and from the Floor to the Ceiling: Thence comes our firſt Conception of *Space*, with its Properties of Length, Breadth and Depth; and thus it is uſhered into our Minds at firſt by a groſs Miſtake of Light and Air, which are *Something*, for meer *Nothing*. Then our Imagination changes the Scene, and turns this *Nothing* into *Something* again, by leaving out the Idea of *Void* or *Emptineſs*, giving it a poſitive Name, and calling it *Space*.

Alas! how prone are we to Error, in taking Things that are not for Things that are, and

and of miſtaking meer imaginary Beings for real ones, by ſuppoſing real Properties to belong to them. Perhaps this may be the very Caſe, when we imagine *Space* (which in itſelf may be a meer Non-entity or nothing) to have any real Powers or Properities; and our Thoughts may be groſly deluded in this Matter, tho' it may not be eaſy to find always where the Deluſion lies.

SECT. VIII.

SPACE *compared to Shadow or Darkneſs.*

I Am ſure there is a very great Inſtance or Example of the like kind of Deluſion in our Ideas of *Shadow* or *Darkneſs* *. May we not as well ſay, that a *Shadow* or *Darkneſs* has ſome real *Powers* and *Properties?* May we not ſay, that it hath the Property of *Length, and Breadth, and Depth, and Diſtance* contained in it? That it has Power to conceal Men and Houſes from our Sight, to ſpread Darkneſs and Inviſibility over a Garden of

* The chief, if not the only, Difference between our Ideas of *Shadow* and *Darkneſs* is this, that *Darkneſs* is a general Term, ſignifying the *Abſence of Light:* but the Word *Shadow* uſually ſignifies that Abſence of Light from any Place, which is cauſed by the Interpoſition of an opacous Body between ſome lucid Body and that Place. Such are the Shadows of Men, Beaſts and Trees upon a Field, in a ſhining Day. Night itſelf in proper Speech is the *Shadow* of the Earth interpoſed between the Sun and the oppoſite Part of the Air or Sky: And all *Darkneſs*, as far as our Senſes reach, is really but a *Shadow*.

of Flowers, or a Room of Pictures, and yet that it hath a Power to render Stars and Glow-worms more viſible? Does not a Shadow ſhew us the Hour on a Sun-Dial? Does it not refreſh Man and Beaſt in a ſultry Day, and help to ſpread Slumber over the Eyes at Night? Are not theſe conſiderable and real Powers.

Again, a Shadow ſeems to have a *Motion.* If a Cloud move acroſs the Sky and hide the Sun, do we not ſay, the Shadow moves either ſlowly or ſwiftly acroſs the Field or the Chamber?

Hath it not alſo ten thouſand *Shapes* or *Figures?* Let me hold up my Hand or any other Object between the Sun and the Wall, hath not the Shadow what Shape I pleaſe to give it, and what Motion I pleaſe to excite in the Thing which is repreſented by the Shadow? Now 'tis plain, that all theſe ſeem to be real Properties, and the Powers of a real Being.

And as it has theſe ſeeming *Properties* and *Powers*, which make Mankind ready to fancy it a real Being, ſo ſome of the Properties of it ſeem to be *infinite* alſo. Is not *Darkneſs* extended beyond the utmoſt Bounds of the material Creation? Is there not ſome real Limit to the Flight of the utmoſt wandring Star-Beam? If not, then the material World is infinite; for Star-Beams and Light, are Matter: If there be a Limit to Light, then all beyond this Limit and theſe wandring

dring Beams is pure Darkneſs, and this Darkneſs is unlimited and infinite. May not a Thouſand new Lights, new Stars, or planetary Worlds, be created in this immenſe Darkneſs? Has it not Capacity to contain them all, and yet again to ſtretch itſelf infinitely beyond the Bounds of this new Creation? We can no more aſſign the Limits of it, than we can the Limits of Space *. Again, As *Darkneſs* hath a ſeeming *Immenſity* belonging to it, has it not an *Eternity* alſo? Was not Darkneſs eternal before Light was ever formed or the firſt Beam of it created?

And yet after all theſe Sportings of the Imagination which ſeem to aſſign real Properties and Powers to *Shadows* and *Darkneſs*, and even to ſtretch them to an infinite Extent, we know and are ſure that *Darkneſs* or a *Shadow* is a meer Nothing: 'Tis only a Privation or Abſence of Light: In proper Speech it has no Being: And Philoſophers are able to give an exact and rational Account how all theſe Appearances are made by the Preſence or Abſence of Light, without allowing a Shadow to be a real Being, or to have in reality any Powers or Properties

* I am ſenſible it will be objected here, that 'tis *Space*, not *Darkneſs*, that has the Capacity of receiving or admitting Light or Sun-Beams. But it may be replied, that though 'tis Space that admits new Body to exiſt there, yet 'tis Darkneſs that does as it were join with Space, to admit the firſt Beams of Light there: Darkneſs gives it a Capacity of admitting that particular Body called *Light*, as much as Space gives it a Capacity of admitting Body.

perties at all. And perhaps in this preſent State we are deluded with the ſeeming Properties of *Space*, as much as we are with the ſeeming Properties *of Shadow:* And tho' I grant the Parallel be not perfectly exact in all Reſpects, yet in ſeveral Reſpects they are ſo much akin, that in Reality *Space* may be nothing but the *Abſence of Body*, as *Shade* is the Abſence of *Light:* And both may be capable of Explication by Philoſophy, without ſuppoſing the one or the other of them to be real Beings.

SECT. IX.

SPACE *unactive and impaſſive.*

LET us try now whether we may not take Courage from this Hint, and raiſe ſome Efforts of Reaſoning, in order to prove *Space* to be *nothing real*, or *no real Being:* Surely there is no real Being whatſoever, but has ſome Capacity either of *Action* or *Paſſion*, of puting forth ſome ſort of Act, or of being acted upon: But *Space* is utterly uncapable of all real *active* or *paſſive Power:* It can neither be an Agent, nor a Recipient of Action. It cannot act upon Body, either as Body does, *i. e.* by Touching; nor as Spirit does, *i. e.* by Volition; for it cannot touch nor will. Nor can Space receive any Actions or Impreſſions of any kind from Body or from Spirit: Now, ſince no Manner of Agency can

can belong to it, nor any Operation of any Being be received by it, ſurely ſuch an *inactive* Thing cannot be God, nor can ſuch an *impaſſive* Thing be a Creature: Therefore it muſt be a meer Non-entity or Nothing.

1. Such an *impaſſive* Thing cannot be a *Creature*. There is no created Being but is capable of being acted upon by another Being, at leaſt by God himſef, and thereby receiving ſome Change: But *Space* cannot be acted upon; no, not by the Great God the Maker of all; nor can it receive any real and proper Alteration in itſelf, nor ſuffer any manner of Change, but what a meer Nothing may receive; *i. e. Being* may be put where *Nothing* was before: ſo Body may be put where before there was empty Space. Thus Space in itſelf is really an impaſſive Thing, and therefore it is no created Being.

2. Such an *inactive* Being cannot be *God*; for the living and true God cannot be conceived otherwiſe than as a moſt active Being, a Being of neceſſary and everlaſting Activity: This belongs to the very Idea and Eſſence of Godhead. But *Space*, *empty Space*, i. e. *Extenſion without Solidity*, is the moſt unactive Idea you can frame, and indeed utterly uncapable of all Action, either as an Inſtrument, or as a prime Agent.

You cannot add the leaſt Degree of *Solidity* to the Idea of Space, in order to render it capable of acting as a *Body* does; for that

that would turn it into the Idea of Body or Matter, it would be *Space* no longer.

You cannot make *Space* think, or will, or act, as a *Spirit* does; for, join *Thinking* and *Space*, which are two diſtinct Ideas, as near as poſſible in your Mind, yet you cannot unite them into one Being, nor conceive of Space as having any Share in thinking, or as exerting a Thought. So you may join *Iron* and *Joy* together in your Mind as two neighbouring Ideas, but they will be two Ideas for ever diſtinct: No force can ſqueeze, melt or weld them together, and make them unite in one; you can never make *Iron* become *joyful*: There is an utter Inconſiſtency in their Ideas, and they are eternally incompatible. Space can no more exert a Thought, than Iron can exert Joy.

Thus Space can never act as a Body or as a Mind. *Space* and *Action* are two incompatible Ideas. Meer Extenſion is not only unactive in itſelf, but cannot poſſibly have Activity given to it by any means; for it contains an Idea of everlaſting Inactivity, and an Impoſſibility of Action: Whereſoever there is Action, there is ſomething beſides Space, even ſome other Being: Space therefore can never be the Idea of the Nature or Subſtance of God, whoſe Nature is neceſſarily and for ever active, and whoſe Exiſtence ceaſes when his Activity ceaſes.

SECT.

SECT. X.

A Re-examination whether SPACE *has any real Properties.*

LET us examine yet further the ſuppoſed Properties and Powers of *Space*, and conſider whether they be real or no.

The *firſt* ſuppoſed Propety of Space is *Extenſion*, or Length, Breadth and Depth: But let us remember what is our original Idea of *Space*, and how we came by it. Have we not found that our firſt Idea of it is *Emptineſs*, or Abſence of Body or Matter in a Room or Veſſel, whoſe Sides are diſtant? Then we call this Abſence of Matter, or this Emptineſs, *long*, *broad*, *and deep*, i. e. there is no Matter or Body there. And when we ſay, that ſome part of Space is a Yard or a Mile long, we mean only that Body is abſent for a Yard or a Mile, or there is Emptineſs for a Yard or a Mile together, or that Emptineſs reaches a Mile or ten thouſand Miles beyond the Univerſe; that is, there is no Matter or Body there. This is the common Idea of Mankind. And thus we come to aſcribe the Properties of Being to a meer Nothing; and let this be well obſerved, that if we were never ſo ſure that there were no Being at all there, as we are ſure there is no Body, yet we ſhould have the very ſame Idea of *Space* as we have now, *i. e.* a long, broad, and

and deep Emptineſs, or Abſence of Being; and that Body which is long, broad and deep, might be placed there. But this leads our Thoughts to the next Prrticular.

The *ſecond* ſuppoſed Property of Space is a *Capacity to receive Bodies in it.* But if this Matter be ſearched to the Bottom, perhaps it will be found that Space is no otherwiſe capable of receiving Body into it, than as the Emptineſs of a Veſſel makes it capable of receiving Liquor, as *Darkneſs* is capable of receiving *Light*, or than as *Sound* may be admitted where before was *Silence*; that is, that *Something* may be introduced or received where there was *Nothing* before. And 'tis much in the ſame manner that *Privation* is exalted to be one of the three famous *Principles of Being* among the *Ariſtotelian* Philoſophers, *viz. Matter*, *Form*, and *Privation.* Ridiculous Principle indeed! which ſignifies no more, than that where any *new Form* or *Quality* is introduced into *Matter*, there muſt be an Abſence of that very Quality or Form before 'tis introduced: So when *Body* is admitted or introduced into *Space*, 'tis neceſſary there muſt be no Body there before; and where the firſt Light is introduced, there muſt be antecedent Darkneſs.

I grant the Modes of ſpeaking concerning *the Capacity of Space to receive Body*, are more familiar to our Ears than the *Capacity of Darkneſs to receive Light*; but perhaps in truth both thoſe Expreſſions ſignify no more, than

than that Body or Light may be brought in where there was Space or Darkneſs before.

In the *third* place, we have been ready to ſay, that *Space penetrates all Body, and is itſelf penetrable by Body*; that is, that Bodies can exiſt where Space is and fill up the ſelf-ſame room; as tho' the Body and Space were two co-extended and co-exiſtent Beings. But perhaps it is a very improper thing to ſay *Space penetrates Body* or *Matter*, for we might as well ſay *Light penetrates Shadow*; whereas in truth, where Light comes Shadow ceaſes and is no more, for Light excludes it. May it not be as natural and juſt therefore to ſuppoſe that Space can never penetrate Matter, but that whereſoever Matter is, there Space is not? Doth not Space vaniſh or ceaſe uterly when and where Body comes? I am ſure *Empty Space* ceaſes, and does not penetrate Matter, and I know of no Space but *Empty Space*.

And here by the way I might obſerve, that for this very Reaſon *Space cannot be God:* for Space is really nullify'd where Body comes. But no Part of God can be nullify'd. To talk of *mutual Penetration* of Matter and Space, is a mere Term of Art invented to maintain the Exiſtence of Space, where Senſe and Reaſon join to declare there is none. For in truth, where Body exiſts Space is not, and it only *then* appears to be what it really was *before*, that is, an empty *Nothing*. Space is no more, and is intirely loſt, when

Body is placed in the room of Emptineſs. Thus *Space* and *Emptineſs* are all one, and perhaps are as meer a Nothing as Shadow or Darkneſs.

A *fourth* Attribute or Property allowed to Space, is *Immenſity* or *Infinity*: but tho' Space ſeem to be infinite or immenſe, yet 'tis not really and poſitively ſo; for whereſoever Body is, there Space is not; and therefore Space is not every where, and then it cannot be abſolutely infinite. Whereſoever this material World is, Space is excluded, is as it were nullify'd, and is not: Now it would be a marvellous Idea indeed, to ſuppoſe Space all round beyond this World to be a real, poſitive, immenſe or infinite Being, and yet to have ſuch vaſt Nullities of Space in the very Centre and Boſom of it where this World lies: This would deſtroy the compleat Infinity of it, and ſeclude it far from the Idea of a God, as being utterly unworthy of him.

And yet further, If this World or any Part of it, were annihilated, then Space or Emptineſs would be larger than it was before; that is, Emptineſs would be increaſed: but this is too mean and too changeable an Idea to make any Pretences to Godhead.

Again; A *fifth* ſuppoſed Attribute of Space is *Indiviſibility*: It ſeems to be indiviſible indeed, but 'tis not ſo, if it does not penetrate Matter; for put a Body into the Middle of an empty Space, and it really divides it; *i. e.* the middle Part ceaſes to be empty Space, becauſe

becauſe it is filled with Body, and Space remains on both Sides; even as a Streak of Light or Sunſhine coming from the *South* deſtroys Darkneſs or Shade ſo far as it comes, and thus divides the two Parts of remaining Darkneſs, the *Eaſt* from the *Weſt*.

A *ſixth* Attribute or Property aſcribed to *Space*, is *Self-Exiſtence*, or that *it wants no Cauſe*. But perhaps the true Reaſon why it appears to want no Cauſe, is not that it has ſuch a real and ſubſtantial Eſſence as is too big to be produced by any Cauſe, but that it is ſuch a ſubtil, tenuious, uneſſential or imaginary thing, that has not Eſſence, nor Exiſtence, nor Reality enough to want a Cauſe, or to be produced or cauſed: Now this is vaſtly different from the Idea of *God's Self-exiſtence*, or his *Self-ſufficiency to exiſt without a Cauſe*. Univerſal Darkneſs wanted no Cauſe before the Creation of Light.

There is yet another ſuppoſed Property of Space, and that is, *neceſſary Exiſtence*, and that it *cannot be annihilated*, nor can it *begin to exiſt*. But here alſo *Light* and *Shade* are happy Illuſtrations of this Debate about *Body* and *Space*. Darkneſs and Space are not neceſſarily exiſtent; for where Light comes Shadow is annihilated and gone; where Body comes, Space is vaniſhed and annihilated. When that Body is removed, Space begins to exiſt there again, as much as Shadow does when Light departs: But in truth it ſhould rather be ſaid in both Caſes, where Something

was before, now there is Nothing; and when Something returns, the Non-entity or Nothingneſs ceaſes. *Body* and *Space* mutually exclude one another, as *Light* and *Shade*, as Something and Nothing. And we are too ready to apply the Words *Exiſtence* and *Annihilation* to Shade and Space, which are Non-entities, as well as to Light and Body, which are real Beings.

Poſitive Terms tend to give us poſitive and deluſive Ideas of Non-entity. If in our Survey of all theſe ſuppoſed Properties of Space, we uſed the Word *Emptineſs* or *Void* inſtead of the poſitive Term *Space*, we ſhould perhaps arrive at juſter Ideas of all this Matter. Let us take the Pains then briefly to run over them again in this manner.

Is Emptineſs *long, broad and deep?* Is Emptineſs *extended?* Has Emptineſs a *Capacity* to receive Body? Is Emptineſs *penetrable by Matter?* What do we mean by all this? Does it ſignify any thing more than that Matter or Body is abſent thence, and it may be brought in there where Emptineſs was before? This does not render *Emptineſs* a Subſtance, or real Being, or make it the Support or *Subſtratum* of real Properties.

Is Emptineſs *immenſe* or *infinite* beyond the Limits of the Univerſe? What do we intend by it, but that beyond this World of Bodies there is no Matter or Body exiſting; yet Matter or Body may be introduced where there is an Emptineſs or Abſence of it.

Is

Is Emptineſs *indiviſible?* By no means; for a Wall or Curtain hung up in an empty Room divides in into two leſſer Voids or Emptineſſes, *i. e.* there is an Emptineſs or Abſence of Body on both Sides of the Partition.

Is Emptineſs *ſelf-exiſtent?* Not at all; for it hath no real Exiſtence: it is rather a Negation of Being. Is it *neceſſarily exiſtent?* No ſurely; for it loſes what Exiſtence it is ſuppoſed to have when Body or Matter is introduced, as Shade or Darkneſs loſes what Exiſtence it appeared to have when Light breaks in.

Yet a little further may this Parallel be illuſtrated, in order to ſhew how much Analogy there is between *Space* and *Shade.* Take a hollow Sphere of ead, out of which all Air is ſuppoſed to be excluded; place it on a bright Day in the midſt of Sun-beams; here is a Globe of *Space*, and a Globe of *Shade or Darkneſs* commenſurate, and, if you pleaſe, co-extended with each other, and both included in this Sphere: Move it ſwiftly, the *Shade* and the *Space* move with the ſame Swiftneſs: Stop the Sphere, and the *Space* and *Shade* are at reſt: Bruiſe it inwardly, and you alter the Figure both of the *Shade* and the *Space* included! for you annihilate a Segment both of *Space* and *Shade*: Break a Hole into this Globe, and immediately you admit both Light and Air, which are Bodies, to fill

up the room of Space and Shade; and thus both the *Shade* and the *Space* are annihilated or nullify'd together. Here are then, or here appear to be, two co-extended and commenſurate Globes of figured and moveable *I know not what*'s abſolutely deſtroyed and nullify'd in a Moment: But perhaps the whole Myſtery of it is no more than this, that the Non-entity of each of them ceaſes by the Introduction of real Being or Matter.

SECT. XI.

An Objection againſt the Nihility of SPACE *anſwered.*

AFTER all ſome Perſon may ſay, But how will you anſwer that great *Objection, (viz.)* Space cannot be meer Nothing, for two Bodies may have twenty Miles of Space between them, and yet if all this Space be Nothing, then there is Nothing between theſe two Bodies, and therefore they are cloſe together or touch one another, and yet are twenty Miles diſtant, which is impoſſible?

But may not this be *anſwered* by a round Denial of this Propoſition, *If there be Nothing between them, then they touch or are cloſe together?* Why may not two Bodies be created or placed at twenty Miles diſtance, and yet nothing but Emptineſs, *i. e.* no real Being, between them? However harſh and uncouth

uncouth it may ſound to learned Ears, that theſe *two Bodies are twenty Miles aſunder, and they do not touch tho' there be nothing between them*, yet the Vulgar World, who very much determine the common Senſe of Words, will allow this Language to be good; for they generally ſuppoſe *Space* to be *Emptineſs*, that is, to be *Nothing*. And if the Learned are offended with this Language, 'tis becauſe they have of late Years at leaſt, run into this Suppoſition, that *Space* is a *real Something*; and 'tis merely their own eſpouſed Opinion that makes this Expreſſion offenſive to them which the vulgar Part of Mankind generally approve of, if you give them leave to think a little.

Beſides, by the former Debates it plainly appears, that if Space be a Real Something, it muſt be a Subſtance, it muſt be Deity; for the Reaſons ſeem to be unanſwerably ſtrong, that Space cannot be a Mode, nor a Creature. Now is it not quite as abſurd to ſay, *There are twenty Miles of Deity between two ſuch diſtant Bodies*, as to ſay, *they are created or placed at ſuch a Diſtance*, and yet there is *Nothing* between them, *i. e.* there is no Real Being, or between them is all *Emptineſs*.

I grant it hardly poſſible to ſpeak on this Subject of *Non-entities* or *Nothings*, without uſing the Terms that repreſent *poſitive Beings* and real Properties: But as we are thus impoſed upon by Words and by our common Ideas in treating of *Shadows*, which we know

are nothing but the *Abſence of Light, i. e.* a meer Non-entity, why may not the ſame be true alſo with regard to *Space* or *Emptineſs*, which is the meer Abſence of Body? And if we are in this Point impoſed upon to take *Space* or *Emptineſs* for a real *Something*, by ſome Forms of Speech we have been taught to uſe concerning it, and ſome appearing or imaginary Properties that we aſcribe to it, we ſee plainly 'tis not the firſt nor the only Inſtance wherein Mankind have been deluded by the common Ways and Manners of Speaking, and impoſed upon to take Words for Things, and to miſtake Appearances for Realities.

In order to confirm this Thought, I may cite Mr. *Locke* himſelf, however poſitive an Idea he may ſuppoſe *Space* to be in ſome Parts of his Writings. His *eighth Chapter* of the *ſecond Book* of his *Eſſay* allows poſitive Ideas of meer privative Things or Privations. See §. 3, 4, 5. "The Idea of *Black* is no leſs "poſitive in the Mind of a Painter than that "of *White*, however the Cauſe of that Co-"lour in the external Object may be only "*Privation*."

"*Sect.* 4. If it were the Deſign of my "preſent Undertaking to enquire into the "natural Cauſes and Manner of Perception, "I ſhould offer this as a Reaſon why a *pri-"vative Cauſe* might in ſome Caſes at leaſt "produce a *Poſitive Idea, (viz.)* That all

"Senſation

" Senſation being produced in us only by dif-
" ferent Degrees and Modes of Motion in
" our animal Spirits, variouſly agitated by
" external Objects, the Abatement of any
" former Motion muſt as neceſſarily produce
" a new Senſation as the Variation and In-
" creaſe of it, and ſo introduce a new Idea,
" which depends only on a different Motion
" of the animal Spirits in that Organ."

" *Sect.* 5. But whether this be ſo or no, I
" will not here determine; but I appeal to
" every one's own Experience, whether the
" *Shadow* of a Man, tho' it conſiſts in nothing
" but the *Abſence of Light*, (and the more the
" Abſence of Light is, the more diſcernible
" is the Shadow) does not, when a Man looks
" on it, cauſe as clear and poſitive an Idea in
" his Mind as a Man himſelf, tho' covered
" over with clear Sunſhine? And the Picture
" of a *Shadow* is a *poſitive* Thing. Indeed
" we have negative Names which ſtand not
" directly for *poſitive* Ideas, but for their Ab-
" ſence, ſuch as *Inſipid*, *Silence*, *Nihil*, *&c.*
" which Words denote (or refer to) poſitive
" Ideas, *i. e. Taſte*, *Sound*, *Being*, with a
" Signification of their Abſence."

" *Sect.* 6. And thus one may truly be ſaid
" *to ſee Darkneſs.* For ſuppoſe a Hole per-
" fectly dark, from whence no Light is re-
" flected, 'tis certain one may ſee the Figure
" of it, or it may be painted." Thus far Mr. *Locke:* And I aſk leave to add to this Diſcourſe,

Diſcourſe, that I have found a late ingenious Writer, in his Notes on the *Engliſh* Tranſlation of Biſhop *King*'s Treatiſe *De Origine Mali*, publiſhed in 1731, well ſupport ſuch ſort of Sentiments as I have here advanced concerning *Space*, *(viz.)* that it is rather a Negation of Being than any thing real and poſitive, however our common Ideas and Language may lead us into Miſtakes about it. See *Chap.* I. §. I. *Note* 5 and 11, and 13. Whether the Learned Author of the *Defence* of Dr. *Clarke*'s Demonſtration of the Being of God, has effectually anſwered all this, the Reader muſt judge.

SECT. XII.

SPACE *nothing real, but a meer abſtract Idea.*

AFTER all theſe Debates wherein we have been endeavouring to prove *Space to be nothing real without us*, yet perhaps we may allow it to be an abſtracted Idea of *the Mind*; and it may poſſibly be formed by abſtracting the Length, Breadth and Depth of Matter, *i. e.* the Extenſion from the Solidity of it: for ſince we frame an Idea of Length without Breadth, and call it a *Line*, when we know there is no ſuch thing really exiſtent; and we form Ideas of united Length and Breadth without Depth, and call this a *Surface*, tho' we know alſo this cannot exiſt; ſo why

why may we not frame an Idea of Extenſion or Space, *i. e.* Length, Breadth and Depth without Solidity *, and yet allow that it hath no proper Exiſtence but in our Ideas?

The Arguments uſed in the beginning of this Eſſay to diſprove *Space* to be a *meer Idea*, may be repeated and anſwered thus.

It is *ſaid*, We cannot have an Idea of what is truly infinite; but our Reaſon aſſures us Space is infinite, or without Bounds, and therefore it is not a meer Idea. I *anſwer*, Tho' we do not form an Idea of Space actually and poſitively infinite, yet we can form an Idea of infinite Space of the ever-growing Kind, and it may be a meer Idea ſtill. Our Idea indeed is not actually infinite, we cannot graſp the Infinity of Space beyond the World, for that would be to bound or limit Emptineſs And ſo we may have an ever-growing Idea of *infinite Number* as well as *infinite Space* or *Emptineſs*, yet it is a meer Idea, and hath no real Exiſtence without us.

Again, It is ſaid, Space cannot be a meer Idea, becauſe it ſeems to have a neceſſary and obſtinate Exiſtence, whether there were any Mind or no to form an Idea of it. I *anſwer*, Such are the eternal Truths, *(viz.) Three and Three make Six, The Whole is bigger than a Part*, &c. and yet what are theſe beſides Ideas

* *Solid* here is taken in the *Phyſical* Senſe for *what reſiſts Matter*, and not in the *Geometrical* Senſe for the *three Dimenſions united*.

Ideas? Have they any real Exiſtence extraneous to the Minds that conceive them? And yet perhaps Space has hardly ſo much Exiſtence as theſe.

And it is certain, if Space or Emptineſs be nothing but the meer Abſence of Being, then the Idea of it is only a Conception of Nothing after the manner of Something, and that muſt be a *meer Idea.*

To conclude, After the laborious Searches of Thought, Reaſoning and Reading in ſeveral Stages of my Life paſt, theſe are the beſt Conceptions and Sentiments that I can frame of *Space.* I grant there may be ſome Difficulties yet remaining, and ſome Darkneſſes which yet may hang over this Subject. Learned Men have laboured hard to ſcatter them in former Ages, and in the preſent too without full Succeſs; yet perhaps in future Time there may be a Way found out for adjuſting all theſe Difficulties to the more compleat Satisfaction of ſome following Age. But in every Age of this mortal and imperfect State there will be ſome Unknowables and Inſolvables: Many of the Themes and Enquiries relating to *Infinites* and *Incommenſurables*, both in Magnitude and Number, and *Eternals* in Duration and *abſtracted Truths* are of this kind: And if we ſhould agree to throw in *Space*, and *Atoms* or *Indiviſibles* into this Heap, we ſhould but enlarge the Number of thoſe perplexing Arguments, whereby perhaps the Great

Great God our Maker deſigns to maintain a perpetual Check upon our proudeſt Powers of Reaſoning, to plunge us now and then into Darkneſs and endleſs Confuſion, to humble us under a Senſe of the narrow Limits of Human Knowledge, and teach us to pay all due Veneration to his Underſtanding, which is unſearchable.

APPENDIX.

ABOUT the Time the Second Edition was publiſh'd I had four Treatiſes put into my Hands, wherein the Notion of *Space* is at large debated, which is the Subject of this *Firſt Eſſay*. When an important Diſpute is managed by Perſons of ſuch ingenuity, and ſuch acute reaſoning Powers as Mr. *Jackſon*, Mr. *Edmund Law*, Mr. *John* and Mr. *Joſeph Clarke*, I hope the Reſult of their Thoughts will be the Inveſtigation of Truth, and the Eſtabliſhment of it in the World; leſt while ſome ſuppoſe *Space* to be true God-Head, and others make it a meer Idea and nothing real, the Atheiſts upbraid us that we ſcarce know the difference between *God* and *Nothing*. I owe my Thanks to two of thoſe Gentlemen who think any Light hath been thrown on this Controverſy by the Specu-

Speculations of my younger Years: but my Time now demands other Employment, and I chearfully leave this Subject in ſuch Hands. Yet I aſk Leave to take Notice that Mr. *Joſeph Clarke*'s Diſtinction of a *Real* and an *Ideal Nothing* will help to ſolve many Difficulties in this Debate, which are created meerly by the Perplexity of Language: and I cannot but approve of Mr. *Law*'s Remark, That a Subject which in the Minds of ſo many Men either raiſes or occaſions ſo many different and contradictory Ideas or Notions, bids fair to be a meer Idea, and to have no real Exiſtence. 1734.

ESSAY

ESSAY II.

Of Subſtance: and of Solid Extenſion and a Thinking Power, as the two only Original Subſtances.

SECT. I.

Mr. Locke's *Notion of* Subſtance *conſidered.*

SUBSTANCE is another of thoſe Myſteries wherein we bewilder and loſe ourſelves by attempting to make Something out of Nothing. Mr. *Locke* has happily refuted that unreaſonable Notion of *Subſtance* in general, which makes it to be ſome real Thing in Nature, different from all the united Qualities, the ſuppoſed Properties and Powers of Body or Spirit, and he has expoſed it to juſt Ridicule, as in *Book* 2. *Chap.* 13. §. 18, 19, 20. In *Chap.* 23. §. 2, 3, and 6. and in other Places he tells us, *Whatever be the ſecret and abſtract Nature of Subſtance in general, all the Ideas we have of particular diſtinct ſort of Subſtances are nothing but*

but ſeveral Combinations of ſimple Ideas co-exiſtent in ſuch (tho' unknown) Cauſe of their Union, as makes the whole ſubſiſt of itſelf: And he often ſpeaks of this ſame *unknown Cauſe of the Union of Properties* both in Corporeal and Spiritual Subſtances, as in §. 15, 37. Now I acknowledge I have very little to ſay againſt Mr. *Locke*'s Repreſentation of the Notion which he has of *particular Subſtances*, if this *unknown Something*, which he ſuppoſes to be the Cauſe of the Union of their Properties, were not ſo much inſiſted on, as to lead his Readers into a Belief that there is ſuch a ſort of unknown real Being called *Subſtance in general*, which ſupports all the Properties that we obſerve in particular different Beings, and which he before had refuted and ridiculed with ſo much Juſtice and Elegance.

I confeſs I ſee no ſufficient Reaſon why we may not content ourſelves with the Notion and Deſcription of *Subſtance* in the main which the Schools give us, (*viz.*) *Subſtantia eſt Ens per ſe ſubſiſtens & ſubſtans accidentibus*; in *Engliſh* thus, (1.) It is that which ſupports Accidents or Qualities in Being, which could have no Being or Exiſtence at all without ſuch a Support or ſuch a Subject in which to exiſt. (2.) It is that which can exiſt, or which ſubſiſts by itſelf, without Dependance on any Created Being. All this is not at all diſagreeable to Mr. *Locke*'s Sentiment: For when we obſerve any Being, whoſe ſeveral Modes we perceive

perceive inhering and united in it as in one common Subject or Bond of their Union, this we call a *Subſtance:* and this Name of *Subſtance* we alſo attribute to this Being from a further Conſideration that it ſubſiſts of itſelf, *i. e.* independent upon any other created Being.

But tho' Mr. *Locke* would ſeem to exclude and abandon any *general Notion of Subſtance*, as another real phyſical diſtinct Being, provided to ſupport all its real or ſuppoſed Accidents or Qualities, and ſeems to banter it by the *Indians unknown Something, which ſupports the Tortoiſe, which ſupports the Elephant, which ſupports the World*; yet, as I intimated, he too often repreſents this Notion of *Subſtance* as ſome real *unknown Thing* or Being, which holds the Properties in Union, and which is different from all thoſe Things which he calls *Qualities* or *Properties*, and which ſupports them all in Exiſtence; tho' he owns, *we know it not*, and have no Idea of it: and thus he ſeems to build again and maintain the very Notion which he before deſtroy'd.

Truly if there were any ſuch real Being in Nature as *Subſtance in general*, or a common Subſtance which ſupports all the Properties of Things, and this Being were utterly unknown to us, then I think it might be granted, that all Beings are, or at leaſt might be, the ſame in Subſtance, and are or may be diverſify'd only by their Properties or Accidents: for if we know nothing of this Being call'd *Subſtance*,

we can deny nothing of it: And then perhaps it might be ſaid, that God and the Creature, that Body and Mind, are the ſame in Subſtance, even the ſame individual Subſtance, and that they differ only in certain Properties: But this is a moſt palpable Falſehood, which I ſhall take ſome further Notice of by and by: for God and the Creature differ from each other in their very Eſſence, in their Subſtantial Nature or *phyſical* Being, tho' the *Logical* or generick Idea of *Subſtance* may be applied to them both, as Self-ſubſiſting Beings. So Matter and Mind, or Body and Spirit, have a real, eſſential and unchangeable Difference in the very Subſtance of them, *i. e.* in what they are in *Nature*, tho' the *Name Subſtance* be attributed to both, and that even in the ſame Senſe, becauſe they both agree ſo far that *they both ſubſiſt by themſelves.*

SECT. II.

The plain Idea or Notion of Subſtance applied to Mind and Body.

LET us try now whether we cannot trace out and repreſent with Clearneſs and Evidence ſome better and more ſatisfactory Idea of this Matter, than to ſuppoſe the Subſtance of all Things to be ſo much unknown, or that there is any ſuch real Being as *Subſtance* diſtinct from all that we uſually call *Properties.*

Subſtance in the proper Notion of it is a certain

certain Idea or Character which our Minds affix to Beings, from a Conſideration that they depend upon no created Being for their Subſiſtence; and therefore are ſaid *to ſubſiſt by themſelves*; and from this further Conſideration alſo, that they appear to be the *Subjects of various Modes or Qualities.* Not that there is or can be any ſuch Thing in Nature as *Subſtance, pure Subſtance*, exiſting abſtracted from all *Qualities*, any more than there can be what the Schools call *Materia prima*, or firſt Matter abſtracted from all Forms, or than there can be pure *Qualities* exiſting abſtracted from all *Subſtances.* Who can tell what is *Motion* or *Reſiſtance*, without including the Idea of ſome *Subſtance moved* or *reſiſting?* Nor can any one have the Idea of *Subſtance* in *Bodies*, without the Idea of *ſolid Extenſion*; nor in *Minds*, without the Idea of *Cogitation*, or a *Cogitative Power.*

But to proceed further in this Enquiry about Subſtance. *Body* and *Spirit* are the two moſt general and diſtinct, if not the only, Ideas we have of *Subſtances*, i. e. of ſuch Things or Beings which we conceive as the Subjects or Supporters of diſtinct *Qualities*, and which ſubſiſt of themſelves without Dependence upon any Creature. Now let us for the preſent ſuppoſe *Body* to be ſolid Extenſion, and *Spirit* to be a Power of Cogitation or Thinking, or at-leaſt that theſe are the prime diſtinguiſhing Properties of theſe two Beings, and we will enquire whether there be need of any fur-

ther Idea of ſome Subſtance to ſupport them.

Theſe two, *(viz.) Body* and *Spirit*, ſeem to be ſufficient Supports for all the Qualities or Modes that we can have any Idea of, ſince they are all either *Senſible*, *Intellectual* or *Abſtracted*, as we ſhall ſhew afterward. *Body* or *ſolid Extenſion* is a ſufficient Subject or Support for any other *corporeal or ſenſible Qualities*, whether it be Figure, Size, Colour, Motion, Reſt, Reſiſtance, Situation, *&c.* they all plainly ſubſiſt in *ſolid Extenſion* as in their Subject: Think of Yellowneſs, Roundneſs, Hardneſs, Swiftneſs, Touching, Reſiſtance, or any other bodily Qualities, they all want *ſolid Extenſion* in order to ſubſiſt, and they want nothing elſe. So *Spirit*, or a *Power of Thinking*, is a ſufficient Subject or Support for any *intellectual* Qualities, whether it be Conſciouſneſs, Knowing, Reaſoning, Doubting, Fearing, Hoping, Wiſhing, Willing, Reſolving, Chuſing, Refuſing, *&c.* all theſe ſubſiſt plainly in a *Cogitative Nature or Power* as in their Subject, eſpecially ſuppoſing this *Power* to be always in act. As for ſuch *abſtracted Ideas* or Modes, as Cauſe, Effect, Likeneſs, Difference, *&c.* they belong ſometimes to Bodies, ſometimes to Spirits, but they need nothing to ſupport them as their Subject, beſides a *Thinking Power* or *ſolid Extenſion*.

And as *ſolid Extenſion* and a *Power of Thinking* have this one Character of *Subſtance*, that they are ſufficient Supports for Qualities, Modes or Accidents; ſo they have the other

Property

Property of Subſtance alſo, *(viz.)* that they ſubſiſt of themſelves, independent of any created Being: No Creature can give Being to one Particle of *ſolid Extenſion*, or the meaneſt *Thinking Power*, or can annihilate and deſtroy either of them, and put them out of Being: Not the feebleſt *Spirit*, or the leaſt Particle of *Matter* or *Body*, can be utterly deſtroy'd and annihilated by the moſt powerful Creature.

I might add yet further, that ſince Mr. *Locke* declares our Idea of particular diſtinct Subſtances to be *ſeveral Combinations of ſimple Ideas co-exiſtent in ſome unknown Cauſe of their Union, and which makes the whole Subſiſt by itſelf*, why may not a *Power of Thinking* be this ſuppoſed unknown Cauſe and Subject of the Combination of the ſeveral Properties of Spirits? And why may not *ſolid Extenſion* be the Cauſe of the Union of the ſeveral Properties and Qualities of Body? What is there neceſſary to unite all the Properties of Matter beyond *ſolid Extenſion?* Make a Trial of all the Modes that can belong to any material Being; What do they want but ſolid Extenſion to unite them? Make the ſame Trial by taking a Survey of the Properties of a Spirit; Will not the Idea of a *Thinking Power* unite them all?

Why then may we not ſuppoſe that *ſolid Extenſion* and a *Thinking Power* may be the very Subſtances themſelves, tho' the Names *grammatically* taken may ſeem to denote *Property* and *Quality?*

The following *Conſiderations* may perhaps lead the Mind into a favourable Diſpoſition toward this Opinion, or at leaſt relieve the ſeeming Strangeneſs of it from the Charge of Abſurd and Impoſſible.

SECT. III.

Conſiderations to ſupport the Application of the Name of Subſtance to Solid Extenſion and a Thinking Power.

FIRST, Since our moſt piercing Thoughts cannot reach deep enough to find out, to know or conceive of any Subject or *Subſtratum* that upholds this *Power of Cogitation* in Spirits, or this Idea of *ſolid Extenſion* in Bodies, why ſhould we imagine there is any ſuch unknown and unknowable Being? May we not ſuſpect that learned and *logical* Forms of ſpeaking have introduced this ſort of Notion into our Minds, rather than any *phyſical* Neceſſity could introduce it into the Nature of Things? And why ſhould we ſuppoſe and multiply real Beings without Neceſſity? Why may not theſe very Ideas of Solid Extenſion and a thinking Power be ſuppoſed to be the *Subſtrata* or Subſtance themſelves, ſince we have no Idea of any other?

Second Conſideration. If we can lay aſide all our Prejudices in this Point, I am perſuaded *ſolid Extenſion* would appear ſubſtantial enough to be called a *Subſtance*, ſince even mere

mere *empty Space, or Extenſion without Solidity*, hath been by ſome Philoſophers eſteem'd ſubſtantial enough to ſubſiſt by itſelf and to deſerve the Honour of this Name? And why may not a *Spirit* or *Mind* be a Power and yet a Subſtance, a *ſelf-ſubſiſtent Power in perpetual Acts?* Do we not know that the acute and laborious Schoolmen among their deep Reaſonings tell us, that God is an Eternal Self-exiſtent Act, or Almighty Power in Eternal Act? And this certainly inheres in no Subject: God is a Subſtance or Subject himſelf: In their Way of ſpeaking they call *God the moſt actual Act*, and yet that does not hinder them from calling him alſo the *moſt ſubſtantial Subſtance.* And what nobler or more grand and illuſtrious Idea can we frame of the bleſſed God, than to conceive of him as an unlimited Power of Conſciouſneſs and Volition in the moſt conſtant and univerſal Activity?

Note, In this Caſe I may ſo far agree with the Schoolmen, as not to make very much Diſtinction between a *Power of Cogitation or Thinking*, and that *Actual Cogitation* or *Thought* which is conſidered in the general and permanent Idea of it, as ever exiſting and as determined to particular Objects ſimultaneous or ſucceſſive. And this I may venture to ſay, becauſe I ſuppoſed this Power to be in conſtant and perpetual Act, and neceſſarily ſo, even in created Spirits, when once they are created; and herein they are a bright Emblem of the bleſſed God, all Conſciouſneſs and Ac-

tivity. 'Tis the very Nature of God to be conſcious and active: If he ceaſes to be conſcious and active, he ceaſes to be. Conſcious Activity is alſo the Eſſence of every Spirit. A noble Rank of Beings we are, the living and lively Offspring and Image of that intellectual and vital Power who gave us Being. Τοῦ γὰρ γένος ἐσμέν, ſaid *Aratus* and St. *Paul.*

Thirdly, Conſider that if *ſolid Extenſion* and a *Thinking Power* are but meer Modes or Qualities, and not Subſtances, then I enquire, May not the Subſtances remain if theſe Modes were deſtroyed? But deſtroy *ſolid Extenſion*, and in the room of it there will remain a meer Nothing. Deſtroy *Thinking Power*, and there remains nothing in its room. We have no Idea left. All Ideas are utterly baniſhed out of the Mind, and all Beings are baniſhed out of the World at once by this Suppoſition. Therefore it ſeems to me that *ſolid Extenſion* and a *Cogitative Power* are real Subſtances, for if you nullify them they leave meer Nothing behind them. If you ſuppoſe *Space* to be ſomething remaining behind, I have accounted for that in another *Eſſay*.

Perhaps you will anſwer, that the *eſſential Modes* or Properties of a Being cannot be deſtroy'd without deſtroying the Subſtance alſo, tho' the *accidental Modes* or *Qualities* may be deſtroyed while the Subſtance remains; ſo Roundneſs in a Bowl is an eſſential Mode or Property, and if you deſtroy Roundneſs, the Bowl is deſtroyed; it is a Bowl no longer, and

and ſo ſolid Extenſion and thinking Power may be eſſential Modes or Properties of certain Subſtances to which they belong, and therefore they cannot be deſtroyed without deſtroying the Subſtance.

To this I reply, that what is *only* and *meerly* a Mode or Property (even tho' it be an eſſential Mode) of any particular Being, whether Body or Spirit, may be deſtroyed, and yet ſome Subſtance, ſome real Being will remain; tho' its eſſential Mode being deſtroy'd, it will not have the ſame Form or Name as it had before: Deſtroy *Roundneſs*, and the Body ceaſes to be a *Bowl*, but 'tis Body or Matter ſtill; deſtroy the peculiar eſſential Mode (whatever it be) that diſtinguiſhes a *Human Spirit* from all other Spirits, and yet 'tis a Spirit ſtill, tho' it ceaſes to be a human Spirit. But the Caſe is not ſo with *ſolid Extenſion* and a *thinking Power*; for if you deſtroy theſe, there is nothing at all remains, not ſo much as an Idea; and therefore I think they are not ſo properly *meer* eſſential Modes, but they are Subſtances themſelves.

I know it will be objected here, that tho' we ſhould grant *ſolid Extenſion* to be a Subſtance, yet we cannot ſuppoſe a *thinking Power* to be a Subſtance alſo: A Power muſt have ſome Subſtance to inhere in, and Extenſion or Expanſion belongs to all Subſtances whatſoever; and it is probable that Extenſion void of Solidity is the *Subſtratum* of the thinking Powers of a Spirit.

But

But may it not be *reply'd*, that we have uſed ourſelves ſo much in Logic to conceive *Power* as a Mode or Property, that is harder perhaps for Scholars than it is for others to drop this Prejudice. Yet in common Language among *Heathens* or *Chriſtians*, the *heavenly Powers*, or the *Powers above*, ſignify God, or Gods, or Angels; and the Scripture uſes this Language, for it often calls Angels *Principalities* and *Powers*, *Eph.* vi. 12. *Col.* i. 16. and ii. 16. 1 *Pet.* iii. 22.

And as for ſuppoſing ſome Extenſion to be the Subſtance or *Subſtratum* of every thinking Power, I grant we are ſo ty'd down by conſtant and familiar Ideas of Body to Length, Breadth, and Depth, that we are ready to imagine there can be no Being without it. We may allow therefore, ſay the *Carteſians*, we may allow young Philoſophers to keep their Ideas of *Extenſion* together with their Ideas of a *thinking Power*, 'till they have proceeded to ſearch farther into the Nature and Actions of a Spirit, and to converſe about the Underſtanding and Will, and their Operations; and they will find by degrees that this *Extenſion* can do nothing toward *thinking*, nor is of any Uſe in all their Reſearches into the World of Spirits: they will find that it is a foreign Idea ty'd on to a thinking Power *by meer Cuſtom*; and they will perhaps inſenſibly drop it by degrees, when they find no Uſe of it in Philoſophizing upon Spirits.

I ſay, this Idea of *Extenſion* is ty'd on to the Idea of a *Soul* by *Cuſtom*, rather than by *pure Nature*. A poor young Creature in the loweſt Rank of Life being once aſk'd, What ſhe ſupoſed her Soul to be? after a little muſing replied, *My Soul is my Think*; whereby it is plain ſhe meant her *Power of Thinking*. And I believe the greateſt Part of Mankind, if they were aſked the ſame Queſtion, would ſooner and more readily reply, that it is ſomething in them that enables them to think, ſpeak, move, and gives them the Power of Thought and Action, than they would ſay, 'Twas any Thing long, broad or deep.

Another *Objection* againſt a Spirit being a thinking Power is this, That a Spirit itſelf has ſeveral Powers, *(viz.)* Judging, Reaſoning, Wiſhing, Willing, Fearing, *&c.* Now how can one Power have other Powers? I *anſwer*, Voice is a Power in Man, and yet a human Voice has the Power of Singing or Muſick: Again, Singing has a Power of gladdening the Heart. Why then may not a Spirit, which is a ſubſtantial Power, have ſeveral other modal Powers and Properties in it?

But I proceed to the next Conſideration, to ſhew that ſolid Extenſion and a thinking Power may be Subſtances.

Fourth Conſideration. If we will but allow theſe two, *(viz.) ſolid Extenſion* and the *Power of Cogitation* to be Subſtances, we are then furniſhed with all the *Ideas of Subſtance* that are neceſſary for all the Millions of ſimple and

and complex Ideas of all the different Beings, Natures, Properties, Actions and Powers that we have; for we may refer them all to one or other of theſe two Subſtances, and conceive them as inhering therein; and we ſhall not be forced to ſearch further, nor run to ſome other unknown and unconceivable Being called *Subſtance*, of which we have no Idea, to ſupport any of the Modes or Qualities of Mind or Body, *i. e.* of the whole Univerſe of real Beings. Allow but theſe two to be Subſtances, and there is no need of framing any other Idea of *Subſtance* to accommodate all the Beings in the Univerſe with ſomething ſufficient to uphold all the infinite Variety of their Properties, or to be the Cauſe of the Union of theſe Properties. Solid Extenſion and Thinking Power will ſuſtain all the Modes which we can conceive: Now all the Subſtances that we know are Body and Spirit, and all the Modes that we know belong to one of theſe.

Fifth Conſideration. Let it be conſidered alſo that the Suppoſition of ſome utterly unknown Being called *Subſtance* to be the *Subſtratum* or Subject of all the Properties of Body, and ſuch an unknown Being alſo to be the Subject of all the Properties of Mind or Spirit, is a Notion that carries with it ſome dangerous Conſequences, and therefore ought not to be too eaſily embraced. For if the *Subſtance of Body* and the *Subſtance of Mind* be ſo much unknown, then the Subſtance of Body

(as

(as I have hinted already) may be the ſame with the Subſtance of Mind, for ought we know to the contrary. If we know nothing of this Subſtance, but that it is ſomething that ſubſiſts by itſelf, and upholds and unites Properties, how can we tell but that the very ſame individual Subſtance may be the *Subſtratum* or Subject both of *ſolid Extenſion* with all its Modes, and of *Thinking* with all its Modes, and may unite the Modes or Properties of Body and Mind together? And thus *Matter* may be made able to think, or may have the *Power of Thinking* put into it, and which may inhere in it together with *ſolid Extenſion.*

And indeed Mr. *Locke* was very ſenſible that his Opinion had this Tendency, and he even allows the Conſequence of it, which I call *dangerous:* for *Book* IV. *Chap.* 3. §. 6. he ſeems to ſuppoſe that *Matter may Think*; for he ſpeaks thus, *We have the Ideas of Matter and Thinking; but poſſibly ſhall never be able to know whether any meer material Being thinks or no; it being impoſſible for us by the Contemplation of our own Ideas without Revelation to diſcover whether Omnipotency has not given to ſome Syſtems of Matter fitly diſpoſed a Power to Perceive and Think,* or as he expreſſes it afterward, *to ſuperadd to Matter a Faculty of Thinking:* and he goes on in that Section to confirm this his Suppoſition. In his Letter to Biſhop *Stillingfleet*, he ſuppoſes it poſſible for the Subſtance of Body to be the ſame with the Subſtance of Mind, in theſe Words:

Words: " The general Idea of Subſtance be-
" ing the ſame every where, the Modification
" of Thinking, or the Power of Thinking
" join'd to it, makes it a Spirit, without con-
" ſidering what other Modifications it has,
" as whether it has the Modification of So-
" lidity or no: As on the other Side, Sub-
" ſtance that has the Modification of Solidity,
" is Matter, whether it has the Modification
" of Thinking or no." *Let. 1ſt* to the Biſhop of *Worceſter*, *p.* 66. Thus we ſee he maintains his Notion of a *general Subſtance* which he had before ridiculed. And we may obſerve, that when he aſſerts that *Matter cannot think*, he uſes ſome of theſe Epithets, *meer*, *bare*, *pure*, *incogitative*, *inſenſible Matter*, B. 2. c. 23. §. 15. and B. 4. c. 10. §. 10, 11, 16. Now why ſhould an Author uſe ſuch limitative Terms as *bare*, *pure*, &c. *incogitative Matter*, if he did not ſuppoſe *ſome Matter* might be Cogitative?

But if this be true, that Matter can have a Power of Thinking given it, then our own Souls may be material Beings, for ought we know, and conſequently diviſible and mortal.

And yet further I add, If this Opinion ſhould be true, then how can we tell but *God* himſelf, even the Infinite Mind, may have alſo the Property of *ſolid Extenſion*, that is, may alſo be Matter or Body; and then he may be the ſame with the Univerſe of Beings, as *Spinoza* fancied; and thus the whole Univerſe, God and this World, may be the ſame

individual

individual Subſtance, which *Spinoza* maintains with Subtilty: for if there be ſuch a Thing as an univerſal ulterior *Subſtratum* neceſſary to ſupport *ſolid Extenſion*, and to ſupport the *Power of Thinking*, and this Subſtance or *Subſtratum* be ſo unkown a Thing as Mr. *Locke* ſuppoſes, how can I deny any thing concerning it? Or at leaſt how can I be ſure that God and the material World have not one common Subſtance? In that Section indeed Mr. *Locke* endeavours to guard his Principles or Doctrines from the Danger of this *Objection*, which he ſuppoſes very naturally to ariſe from his Principles and Conceſſions; but I think he neither does, nor perhaps could he effectually ſecure them from ſuch unhappy Conſequences.

SECT. IV.

The Occaſions of Miſtake on this Subject.

IN the laſt Place, let us conſider how it comes to paſs that the learned World might happen to miſtake in this Matter, and why they ſeem ſo unwilling to admit this Doctrine of *ſolid Extenſion* and of a *Power of Thinking* to be two real Subſtances, or ſufficient *Subſtrata* or Subjects for all the Qualities of Matter and Mind.

The *firſt Occaſion of Miſtake* may be this.

In our daily Obſervation of what paſſes in the Material World, we find many of the Qualities or Properties of Bodies continually alter'd,

alter'd, and new Qualities or Properties perpetually ſucceeding the old ones which are loſt or deſtroy'd, but the Subſtance remains ſtill the ſame: And therefore we ſuppoſe, and very juſtly, that there muſt be ſome certain Thing called *Subſtance*, which ſupports all theſe changing Properties and Qualities in their ſucceſſive Exiſtence. So a Piece of Wood put into the Fire, loſes moſt of the Properties or Qualities of Wood, and becomes Fire itſelf, or a burning Coal; its Colour and Hardneſs or Firmneſs are loſt, it has acquired a new *Colour*, *(viz.)* Redneſs and new *Powers*, (*viz.*) of heating Water, of melting Metal, and burning combuſtible Things, *&c.* In an Hour's time this ſame Matter turns into Aſhes, and then its *Colour* is changed again into a duſky white or grey, the Coheſion of its Parts or Conſiſtency is quite loſt, and it becomes quite another ſort of Body, a Million of ſmall Atoms, a Heap of Corpuſcles or Sands: yet we ſuppoſe the *Subſtance* which once had the Qualities of Wood, ſtill continues, as indeed it does; and that is, I ſay, *ſolid Extenſion* or *Matter*, 'tho' tis broke into many little Subſtances or ſolid Extenſions. And in the ſame manner, becauſe we ſometimes call *Solidity* and *Extenſion* two Properties or Qualities of Body, we are too ready to imagine they may be ranked among thoſe many Qualities which may be changed, or removed and loſt, while yet the Subſtance remains; whereas this is impoſſible

impoſſible. And yet perhaps this Imagination may be one of the Springs of our Miſtake.

So in a Spirit or Soul, we find infinite Varieties of Thoughts, Wiſhes, Deſires, perpetually altering and ſucceeding one another, and ſometimes contrary to one another; and yet we ſuppoſe, (and juſtly too) that the Subſtance of the Spirit remains the ſame. But ſince we ſometimes call a *Power of Thinking* a Property of a Spirit, we are too eaſily led to rank this alſo among thoſe many Qualities and Properties, which may be altered while the Subſtance of the Soul remains; which perhaps is impoſſible; and yet this may be the firſt Occaſion of our Miſtake here.

Secondly, Another Spring or Ground of Miſtake may be this: Moſt of theſe Things which are thus alter'd, while the Subſtance remains, as in a *Logical* View they are called Qualities, ſo in a *Grammatical* View the Names of them end in *ſion* or *tion*, or *neſs* or *ing* or *ity*, &c. Hence it comes to paſs, that whenſoever we ſpeak of a Thing, which by a *Grammatical* Termination ſounds like a Quality, (and is ſometimes *logically* repreſented as a Quality) we ſuppoſe it loſeable while the Subſtance remains; and we fancy it to require ſome ſubject in which it inheres, or ſome *Subſtratum* or Subſtance to ſupport it: Thus for Inſtance; When we ſpeak of *Motion*, or when we ſpeak of *Gravity*, we mean a Quality or Property, which requires ſome-

thing diſtinct from itſelf, and more ſubſtantial than itſelf, to ſupport this Quality; there muſt be ſome Subſtance which may be *moved*, or which may be *heavy*; and on this Account, when we ſpeak of *Extenſion* and *Solidity*, we are ready to infer the ſame as we do concerning *Motion* or *Gravity*, i. e. that there muſt be ſome Being diſtinct from *Extenſion* and *Solidity* to uphold theſe Qualities: But this is an Inference made without juſt Reaſon, and by meer Similarity of Sound and Termination.

I might repreſent this Matter even by thoſe Qualities of Body, which are called by the very Names of *Extenſion* and *Solidity* taken in another Senſe. We uſe the Word *Extenſion*, when we ſee a Piece of Cloth or Spunge may be extended or ſtretch'd to a larger Size, or ſhrunk and contracted to a narrower; and this *Extenſion* or *Stretching*, as well as *Contraction* or *Shrinking*, being alterable while the Cloth remains the ſame, we form an univerſal Idea of *Extenſion* as a meer Quality; and indeed it is ſo when we uſe the Word to ſignify *Stretching*. So when we feel a Piece of Wax hard to the Touch, we call it *ſolid*: We melt it, and find it has loſt its Hardneſs or *Solidity*, and thence we come to call *Solidity* univerſally a Quality; and indeed it is ſo in this Senſe, when it ſignifies *Hardneſs*: But it does not at all follow, that *Extenſion*, when it ſignifies *Length, Breadth and Depth*,

and

and is joined as it were in one Idea with *Solidity*, as that ſignifies *Impenetrability*, ſhould be a meer Quality, tho' *Extenſion* and *Solidity* are meer Qualities, when one ſignifies *Stretching*, and the other ſignifies *Hardneſs*. When therefore *ſolid Extenſion* is repreſented in our Way of ſpeaking, as the primary Idea of Matter; ſurely it is ſomething more than a meer *Quality*: For the Senſe in which the Words are uſed, when applied to Body in general, is very different from the former Signification when applied to Cloth or Wax.

And if we will judge here rationally, accorrding to the Rule by which we judge of Qualities and Subſtances at other Times, *ſolid Extenſion* may be properly a *Subſtance*; for whatſoever Qualities in Bodiesare changed, this has the Character of Subſtance, for it is immutably the ſame. Matter is ſolid Extenſion, and the ſame ſolid Extenſion too, through all the infinite Varieties of Change of its other Properties: This can never be loſt, till the Matter itſelf be deſtroyed or annihilated; nor can this be diminiſhed or increaſed, but by diminiſhing or increaſing the Matter.

In the ſame manner, when we think of a Man that has a *Power* of remembring, of inventing, or of compoſing well, or of moving his Limbs, we call theſe Powers *Modes*, *Properties* or *Qualities*; we obſerve that in Sickneſs and Diſorders of Animal Nature, a

Man may in a great meaſure loſe theſe Powers, and yet his Soul or Spirit continue the ſame in Subſtance ſtill; and therefore we ſuppoſe the Powers of a Soul univerſally to be all *Qualities*; whereas in Truth the *Power of Thinking*, i. e. of Perceiving and Willing, is never loſeable; it remains as long as the Soul continues a Soul; and therefore this *Power of Thinking* may be the very Subject or *Subſtance* of the Soul, in which all other Powers of the Soul inhere.

There is yet a *third* Reaſon why we are ſo ready to make *ſolid Extenſion* to be two meer *Qualities* of Body or Matter, rather than the *Subſtance* of it; and that is, that we fancy them to be two very different Things in the Eſſence of Body; and that *Solidity* may be deſtroy'd, and yet the *Extenſion* remain, and become empty Space: So that *Solidity* looks like a ſort of Quality, which may be, or may not be added to the ſame individual Portion of *Extenſion:* Whereas in Truth *Solidity and Extenſion* conſidered in Body, are but as one Thing; for if you take away the *Extenſion*, I am ſure *Solidity* is entirely loſt: and if you deſtroy the *Solidity*, that very Extenſion and Dimenſion of that Body is alſo deſtroyed and loſt, and there remains nothing but Emptineſs and void Space; which according to my beſt Opinion is a meer Nothing, or an abſtract Idea. When therefore you ſpeak of ſuperadding *Solidity* to *Extenſion*, or making *Body* of

of it inſtead *of Space*, you do really in your Ideas only introduce the Subſtance of Body, where before there was meer Emptineſs, or nothing at all. *Solidity* in its own Nature, howſoever the Name of it may ſound, is really a Thing too ſolid and ſubſtantial to be ſuperadded as a meer Quality to the *Extenſion* of Space: for the Solid itſelf has an individual Extenſion or Dimenſions of its own, very different from the ſuppoſed Extenſion of Space. Nor can this ſuperadded Quality of Solidity turn Space into Body in any other Senſe, than by bringing in a real Subſtance in the room of a meer Nothing.

Thus I have pointed out ſome of the Cauſes and Springs of our Miſtake in this Matter. Now let it be obſerved, that having been wont to conceive theſe Ideas of *Thinking Power* and of *ſolid Extenſion*, in our *common* and familiar Way of Diſcourſe, under the Form of *Qualities*, when we grow *learned*, we range them under the Head of *Qualities*, *Modes* or *Properties* in *Logick*; which want Subſtances to ſupport them, and thereby we are more confirm'd in ſuppoſing there muſt be ſome other *Subſtratum* or *Subſtance* or Support to uphold them, as all other Qualities require.

And this Miſtake may partly ariſe, as I hinted before, from the Sound of the Terminations *ity* in Solidity, and *ſion* in Extenſion, which are the uſual Terminations of the

Names of Qualities, which Names are called *Abſtracts* *; and this perſuades us that there are ſome *Concretes* * belonging to them, *i. e.* ſome different Subjects or Subſtances upholding and ſupporting theſe *Abſtract* Names of Qualities: Thus by *Grammatical* Names and Terminations, and by *Logical* Methods of ranging them, we are led inſenſibly to ſuppoſe *ſolid Extenſion* and a *Power of Cogitation* to be meer Qualities, and that there is, or muſt be ſome unknown ſort of Thing called *Subſtance* to uphold them: And thus perhaps Men frame to themſelves new and imaginary Beings, which have no Exiſtence in Nature; and at the ſame time confeſs they are unknown and unknowable, and that they have no Ideas of them, and know not what they are; and I think I have ſhewn that *Nature* has no need of them, and therefore *Fancy* need not give them an Exiſtence.

To conclude; I have reaſon here again to repeat the judicious Remark of Mr. *Locke*, That

* Note, The Name of *Abſtract* is given to a Word that ſignifies a Quality, as *Whiteneſs*, without including the Subſtance, or the Thing that is White; whereas the Word *White* is a *Concrete*, becauſe it denotes the Thing or Subſtance together with the Quality. And by theſe Diſtinctions of Words we are too often drawn in to Miſtakes, and imagine all *abſtract* Words, and all *concrete* Words, to confine their Ideas to the ſame Limits and Regulations. But we ought to remember that *Things* are made by God and Nature; *Words* are made by *Man*, and ſometimes applied in a Way not exactly agreeable to what Things and Ideas require.

That *we ought to put Things together as well as we can; but after all, there are ſeveral Things which will not be bundled up together under our Ways of ſpeaking.* We have uſually ranged *Solidity* and *Extenſion*, and *a Power of Thinking*, under the general Head of Qualities or Properties; and becauſe we have not ſo many Words as we have Ideas, nor particular Words for Things in the various Relations in which we ſurvey them, we ſeem to have Occaſion ſometimes to ſpeak of theſe Things as *Properties* or *Qualities*, and ſometimes as *Subſtances*. We ſpeak of them as *Qualities* or *Properties*, when we call *Matter* and *Spirit* two Subſtances, which are diſtinguiſhed by their primary *Qualities* or *Properties* of ſolid Extenſion and of Cogitation: But this ſhould not forbid us to range them in another View under the general Head of *Subſtance* alſo, ſince they are two general *Subſtrata* or *Subjects* of all other imaginable *Qualities* that can belong to Body or Mind. And if we will but allow theſe two to be *real Subſtances*, we are furniſhed with *Subſtrata* or *Subjects* ſufficient for all our modal or qualitative Ideas to inhere in, and we need no further Debate about this ſtrange Thing *Subſtance*.

If, after all, we find Difficulties in adjuſting theſe Speculations with a perfect Accuracy, let us remember, that our Underſtandings are very imperfect Powers; that Forms

of Learning as well as unlearned Prejudices ſometimes lead us into Miſtakes; and that all Things will not eaſily be collected and bound up under our *Grammatical* and *Logical* Ways of ſpeaking, and confin'd to them only.

ESSAY

ESSAY III.

Of the Original of our Perceptions and Ideas.

FATHER *Malebranche*, who was an admirable Writer in the laſt Age, and has many excellent Chapters in his Treatiſe of *The Search after Truth*, yet has vented a ſtrange Opinion, that *we ſee all our Ideas in God.* 'Tis the known and diſtinguiſhing Character of this rational Author, that he falls into a ſort of Enthuſiaſm in his Doctrine concerning our Ideas of Things, and their Original. He ſuppoſes God to contain in himſelf all material Beings in a ſpiritual Manner; which he calls the intelligible Sun, Moon, Trees, and Stars, the intelligible World, and intelligible Extenſion: And that created Minds receive all their Ideas of External Objects, by contemplating this intelligible World which exiſts in God; which he explains and attempts to prove at large in the ſixth Chapter of the third Book, Part II. and to prepare the Way, he labours to refute all other Opinions in the five Chapters preceding. But among all

all theſe Opinions of the original Ideas, he has neither exactly propoſed nor refuted the true *Carteſian* Doctrine, which, with a little Alteration, ſeems the moſt evident and moſt defenſible of all: And this I ſhall endeavour to deſcribe in ſeveral Theſes in a diſtinct manner, wherein we ſhall ſee how far God concurs in the Ideas formed by the Mind.

I. The Soul of Man is a Thinking Being, created and preſerved with all its Capacities by God the Almighty Spirit. The *Carteſian* Writers make ſelf-ſubſiſtent and perpetual Cogitation to be the intimate Eſſence and Nature of it: But I had rather ſay, It is a Power of Thinking, *i. e.* of Perceiving and Willing in continual Act; and conſequently, 'tis created capable of forming or receiving Ideas in the Mind, as well as of exerting Volitions, or Acts of the Will. And as 'tis brought into Being by the creative Power of God, ſo 'tis the Almighty conſerving Power of God that maintains its Being, with this Capacity of Perception: and it is his common providential Concourſe that continues it in conſtant Act: By which I mean no more than the ſame creating, conſerving and concurring Influence of God, whereby all Bodies were produced at firſt, whereby they perſiſt now in Being, and act or are acted according to their Natures, and the Laws given them by the Creator.

II. How

II. How the Soul of Man forms or acquires ſpiritual or intellectual Ideas, *i. e.* the Ideas of itſelf, of its own Actions, and the Ideas of other Minds or Spirits, we cannot conceive any otherwiſe than by its own immediate Conſciouſneſs of itſelf and its Actions, by turning its Thoughts inward upon its own Exiſtence, Nature, Perceptions and Volitions, Operations and Affections, and by the Remembrance of and Reflections upon its own Modifications, as well as by its own Conſciouſneſs of them at firſt: This is what Mr. *Locke* calls the Knowledge of Things, or *gaining Ideas by Reflection.* 'Tis by this means we form or acquire all our Ideas of *Underſtanding*, *Will*, *Spirit*, *Aſſent*, *Diſſent*, *Fear*, *Hope*, &c.

III. How the Soul gains any new Ideas of bodily Things, when it is in a ſeparate State, we are not ſo well capable of determining, till we arrive at that State ourſelves. But in this preſent State of Union with a Body, we may give ſome happy Gueſſes how we come to form corporeal Ideas, or to acquire Senſations of what relates to the Body. This is what Mr. *Locke* chiefly calls *gaining Ideas by Senſation.* And in order to this we muſt firſt conſider, whether a Spirit could receive any Senſations from Matter, without a ſpecial Union to ſome particular Body; and then what is meant by the Union of a Spirit to a Body.

IV. As

IV. As to the *Firſt*, we cannot conceive how a Spirit can receive any Senſations or Ideas from corporeal Objects, without its particular Union to ſome certain Body by that God who created it. Since Body and Spirit are of ſuch widely different Natures, that it is impoſſible they ſhould touch one another, a Body cannot give notice to a Soul to raiſe any Idea or Peception in it by a Jog or Shake of any kind.

Beſides, when any particular Body moves, can all Spirits perceive it; No ſurely. Or can any one Spirit receive Senſations from the Motions of all Bodies in the World? By no means. Either of theſe is a moſt extravagant Fancy, contrary to all Experience. It is evident, that one particular Soul receives Senſations immediately from one particular animal Body, and from that alone: Other Bodies can impreſs no immediate Senſations or Ideas on that Spirit *. Now why is it only from this one Body, that this one Spirit can receive Impreſſions

* I do not pretend to determine here, that it is not poſſible, in the Nature of Things, for one Soul to be conſcious of the Motions of two, or of twenty Bodies; nor do I know that the Nature of Things forbids two or more Souls to receive Senſations from one Body. Either of theſe for ought I know, is very poſſible, if God pleaſe to appoint it. All that I maintain here is, that this is not the preſent Courſe of Nature, or ſettled Order of Things in our World; and much leſs have Souls or Bodies any ſuch Original innate Power in themſelves to hold immediate or reciprocal Communications with Multitudes.

Impreſſions or Senſations? The Soul did not chuſe this Body to make itſelf conſcious of its Motions: much leſs could the Body chuſe this Soul, to impreſs Senſations on it: Nor can it be reſolved into any thing but the Will and Appointment of the great God their common Creator, who made this Soul and this Body, and united them into a Man.

V. We are in the *next* Place then to enquire what is meant by the Union of a Spirit to a particular Body, or wherein doth it conſiſt.

When we ſay a *Spirit is united to an animal Body*, this doth not mean *mutual touching* of each other: for, as we ſaid before, this is impoſſible. *Tangere vel tangi niſi corpus nulla poteſt res. Lucretius* is here in the right: But the chief Thing wherein this Union between an individual human Body and an individual Spirit conſiſts, ſo far as we can find it, lies in theſe two Laws or Appoinments of God our Creator.

1. That when ſome particular Impreſſions are made, or particular Motions are excited in that Part of that individual Body which is called the *Senſory*, whether they ariſe within itſelf, or are convey'd from the outward Organs of Senſe, or any other Parts of Body by means of the Nerves, God hath powerfully ordained, that that individual Spirit ſhall have ſuch particular Perceptions or Senſations, or ſuch Ideas of outward Objects.

2. That

2. That when that Spirit wills to raiſe ſuch a particular Motion in the Limbs, or in ſuch Parts of the Body as God hath ſubjected to voluntary Motion, he hath powerfully ordained that ſuch a Motion ſhall be preſently excited by the Means of the Nerves or Muſcles in thoſe Limbs or thoſe Parts, upon the meer Volition of the Soul; for we have no Knowledge of any other executive Power that does this: All that we are conſcious of is, that the Soul wills, and the Body moves.

In theſe two Things chiefly conſiſts the Union of Soul and Body.

VI. Here it may be proper to obſerve, that there is ſome particular Part of that Body, which may be called as it were the *common Senſory*, or the Palace of the Soul; not where ſhe reſides, as in a proper Place, (as will appear hereafter) but where ſhe receives immediate Notices of Things that relate to the Body, and where ſhe hath more immediate Influence in moving the Nerves and Muſcles, which ſerve to move the Limbs and moveable Parts of the Body. * Now, this is evidently the Brain, or ſome ſpecial Part of the Brain, which appears from theſe three Things eminently.

1*ſt*. Becauſe all the Nerves, whoſe Extremities

* *Des-Cartes* and his Followers ſuppoſed this common Senſory was the *Pineal-Gland*, which is ſituated almoſt in the middle of the Brain; and ſome of their Reaſons for it are not contemptible, tho' I can by no means confine the *Senſory* to ſuch narrow Limits.

mities are wrought in the ſeveral Organs of Senſe, *(viz.)* the Eye the Ear, the Noſe, the Tongue and Palate, have their Spring or Origin in the Brain; and the Nerves which ſubſerve the general Senſe of feeling, and which are ſpread through all the Body, have their Origin there alſo: And thus when the outward Extremity, or other End of thoſe Nerves, is moved or affected any way, the Motion is communicated immediately to the inward Origin of them in the Brain, to give notice of all Things that affect the outward or any diſtant Parts of the Body, whether they be Shapes, Motions, Colours, Sounds, Taſtes, Smells, Heats, Colds, *&c.* And it is by means of theſe Nerves alſo, which have their Origin in the Brain, that every extreme Part of the Body is put into Motion at the Will or Command of the Soul. It ſeems proper therefore to ſuppoſe the Soul to have its more immediate Government and Operations near the Origin of the Nerves, which are ſo much the Inſtruments of its Perceptions and Operations. Now, to confirm this by Experiment, I add,

2*dly*, If any of the Limbs are cut or bruiſed, while there is a Ligament tied ſo hard round the Limb, that there can be no Communication of that Motion by the Nerves to the Brain, the Soul feels it not, the Man hath no Perception or Senſation of it. And if the Nerves which go from the Brain to any Limb

are

are cut, the Will cannot make that Limb move.

3*dly*, When we ſet ourſelves to think or ſtudy, we feel and are conſcious that we employ ſome operative Power or Powers within the Scull, and perhaps generally a little within the Forehead: And the Reaſon why we feel it there is, becauſe the corporeal Motions and Traces are there formed, and preſerved, and renewed, which ſerve to raiſe or awaken Ideas in the Mind, and which are ordained to miniſter to the Soul in its intellectual or ſenſitive Operations while 'tis in this united State.

VII. The Perceptions which a Spirit has by means of its Union with the Body in this preſent State, are chiefly of theſe three Kinds.

1. Such as have no external Objects for their Exemplar, nor do they ſo much as ſeem to want any; for they are not Repreſentations of Objects, but meer Senſations of the Soul: Such are *Hunger*, *Thirſt*, *Pleaſure*, *Eaſe*, *Pain*, and in general our Appetites and Paſſions. Tho' ſome of theſe, *(viz.) Eaſe*, *Pain*, &c. may be occaſioned by outward Objects, yet we are in no great Danger here of making a falſe Judgment about them, and of imagining that theſe Perceptions have any Reſemblance to thoſe outward Objects which are the Cauſes or Occaſions of them. No Man thinks there is Pain in the Sword that wounds him and gives him Pain. Pleaſure and

and Pain appear to be meer *Senſations*, rather than proper Ideas; yet 'tis granted we can form an Idea of them afterward, by conſidering what thoſe Senſations are, or by reflecting on what we feel? and thence we gain the Ideas of *Hunger*, *Thirſt*, *Pain*, *Pleaſure*, &c. which very Senſations are the Exemplars or Patterns of thoſe Ideas.

2. Another ſort of Perceptions which we obtain by Union with the Body, are ſuch as ſeem to be proper *Ideas*, rather than *meer Senſations*, yet they have no real Objects without, which are the proper Exemplars of thoſe Ideas; there is no outward Being which thoſe Ideas are like, and yet they ſeem to repreſent ſome outward Originals or Exemplars, and we are ready to ſuppoſe they have ſomething from without that reſembles them: Such are the *ſecondary* and *ſenſible Qualities* of Bodies, *(viz.) Colours*, *Sounds*, *Taſtes*, *Smells*, *Cold*, *Heat*, &c. Theſe have been abundantly proved by Philoſophers not to have any real Exiſtence in outward Objects, ſuch as we perceive them; and tho' we generally call them *Ideas* becauſe they ſeem to repreſent outward Objects, yet really they are *meer Senſations* which the God of Nature has ordained to ariſe in us on occaſion of ſome Motions, Strokes and Impreſſions, which outward Objects raiſe or form upon our Organs of Senſe, and which are thence conveyed to the Brain or common Senſory. See Mr. *Locke*'s excel-

lent Diſcourſe on that Subject, *Eſſay*, *Book* II. *Chap.* 8.

It is granted here, that the Bulk or vulgar Part of Mankind, are deceived in paſſing a raſh Judgment, that there are ſuch Qualities in outward Objects as reſemble theſe Ideas in the Mind; yet there is no Inconvenience to Human Life ariſing from this Miſtake; for all the valuable Purpoſes in Life are anſwered by theſe Senſations, ſince we have ſufficient notice thereby what Objects are the cauſes of them, whether theſe Objects are real outward Exemplars of them, and do reſemble them or not. If I know that *Wormwood* will give me a bitter Taſte, and a *Bell* will make a tinkling Sound, I can judge as well how or when to uſe Wormwood or a Bell, while I lie under this Miſtake, and while I ſuppoſe the *Wormwood* itſelf to have the Bitterneſs in it, and the *Bell* itſelf to have the Sound in it, as if I believed this Sound and this Bitterneſs to be only Senſations in my Mind, of which the *Bell* and the *Wormwood* are the Cauſes or Occaſions. And as for Perſons of Science and Enquiry, there are Ways and Means of Experiment and Reaſoning, whereby they may find out and have actually found out this vulgar Miſtake; and they are or may be convinced and aſſured that theſe Ideas of *ſenſible Qualities* have no external Reſemblances to the Objects which excite them, and thus they may undeceive themſelves.

Now

Now in forming theſe Ideas of ſecondary or ſenſible Qualities, there is no need that the *Traces upon the Brain*, which are the more immediate Occaſion of them, ſhould any way reſemble the Ideas, ſince there is no real Reſemblance in the *outward Objects* themſelves, which are the prime or remote Occaſions of them: But God hath ordained, that whenſoever ſuch Motions and Traces are form'd in the Brain, the Soul ſhould immediately form ſuch Ideas, or have ſuch Perceptions raiſed in it.

3. The laſt ſort of Perceptions which the Soul acquires by its Union to the Body, are ſuch as have real proper Objects without itſelf, which are the true Originals and Exemplars of theſe Ideas or Perceptions, as well as the Cauſes or Occaſions of them; ſuch are the Ideas of *Extenſion*, *Solidity*, *Body*, with all the *primary Qualities* of it, ſuch as *Shape*, *Reſt*, *Motion*, *Size and Situation.*

'Tis moſt highly probable, if not ſufficiently evident, that theſe do exiſt without us in ſuch a manner as we perceive them; and that for this Reaſon among others, that we have notice of them by the *Touch*, as well as by the *Sight*; and we cannot ſuppoſe that God has ſo formed our Natures, that two Senſes ſhould join to deceive us, when we have no way left to undeceive ourſelves.

In order to prove yet further that theſe Ideas of the third Sort have real Objects which reſemble them, I add, 'tis very poſſible that

there may be ſuch real Objects, and then we need ſeek for no other reaſon why God appoints us to have ſuch Ideas, beſides the ſimilarity of their Objects, ſince God and Nature do every thing the ſhorteſt and plaineſt way: Whereas 'tis impoſſible that the Ideas of the firſt and ſecond Sort ſhould have any real Objects that reſemble them, and therefore they muſt be traced to another Spring, even to the Divine Wiſdom and Volition without any ſimilarity in the Object.

And indeed, unleſs this be allowed, the World of Bodies in which we dwell, and of which our Bodies are a Part, muſt be meer chimerical and fantaſtick Univerſe; but 'tis highly improbable that God has made ſo vaſt a Creation of Spirits to dwell in a World of Phantaſms for Six thouſand Years ſucceſſively; or rather that each ſingle human Spirit ſhould contain in itſelf ſuch a pantaſtick World with endleſs and unavoidable Illuſions, Miſtakes, and Suppoſitions that ſuch a World exiſts without us. And however ſome ingenious Men have erected ſuch a fantaſtick World in their Philoſophemes, I can hardly think that any Man ever believed it: A late Author of the *Enquiry into the Nature of the human Soul* has refuted this Opinion. *Sect.* 7.

Now in theſe laſt Ideas, we may ſuppoſe that the Srokes or Traces which are formed on the Organs of Senſe, and which are conveyed thence to the Brain, may in the Shapes or Motions thereof have ſome Reſemblance to the

the external Objects which are the Occaſions of them. So the very Figures of a Triangle or Square, of a Houſe or Tree, of a flying Bird or falling Hail, are traced upon the *Retina* or inward Net-work of the Eye, and perhaps conveyed thence to the common Senſory in ſimilar or correſpondent Figures.

VIII. Tho' the Traces and Impreſſions which are made on the Brain ſhould never ſo much reſemble the external Objects that ſtrike and impreſs them there, that is, tho' a Triangle drawn in a Paper ſhould form a Triangle in the Eye, and impreſs or convey the ſame Figure to the common Senſory, yet theſe impreſſions cannot of themſelves have an efficacious and immediate Influence upon a Mind or Spirit, to excite or form ſimilar Ideas in it: For ſince Mind and Body are two diſtinct Beings ſo entirely different in their whole Nature, ſince all Contact between Mind and Body is impoſſible, we cannot conceive how any corporeal Motions or Figures impreſſed or traced in the Brain, ſhould have an efficacious Power in and of themſelves to give any Notices to the Soul, or to raiſe Perceptions or Ideas in a Mind or Spirit.

'Tis not therefore any corporeal Traces, Motions or Impreſſions in the Brain, whether ſimilar or diſſimilar to the Objects or Things which occaſion them, that can be in a moſt proper Senſe the ſelf-ſufficient and effective Cauſes of thoſe ſpecial Ideas or Perceptions in the Soul, which are occaſion'd by them.

IX. Yet ſince it appears by univerſal Experience, that whenſoever theſe particular Motions or Traces are impreſt by outward Objects on the Senſes, and by them convey'd to the Brain, ſuitable and peculiar Ideas are alſo raiſed or formed in the Mind, we have reaſon to ſuppoſe that God the Creator ordained by an Almighty Volition, that this ſhould be the Way whereby the Mind ſhould acquire or form theſe Ideas: And 'tis God alſo who ordained, that whenſoever the Soul wills to move the Limbs of the Body, the Body ſhould exert thoſe particular Motions.

And indeed it is in this divine Decree or Law of Creation, which runs through all Ages, and exerts its perpetual Influence in all Mankind, that the *Union* or rather *Unition* of a particular Soul and particular Body conſiſts. When a human Body is ſo far formed as to be fit to receive ſuch Impreſſions on the Brain, and fit to exert ſuch Motions of the Limbs, then it may be probably ſuppoſed the creating Influence of God exerts itſelf in cauſing a Spirit to exiſt, and in this manner to be united to this human Body.

Then begins the Communication between Soul and Body, which continues during the Life of this animal Nature: Then the Traces in the Brain, that are formed by ſome peculiar Diſpoſitions or Irritations of the Fibres in the Stomach or Throat, occaſion the firſt ſort of Senſation, *(viz.)* Hunger or Thirſt, Pleaſure or Pain: After that thoſe peculiar Im-

Impreſſions in the Brain, which are raiſed by the ſecondary or ſenſible Qualities of Body, produce in a Soul a ſecond ſort of Perceptions, which are alſo called Ideas, ſuch as the Perception of particular Colours, Taſtes, and Smells: And then alſo theſe ſpecial Motions or Traces on the Brain, which are raiſed by the primary Qualities of corporeal Objects, ſuch as Shape, Motion, Size, *&c.* raiſe in the Soul the third ſort of Perceptions, or thoſe proper Ideas which are ſimilar to and correſpondent with the outward Objects which are the occaſion of theſe Impreſſions. Thus the Mind gains theſe three ſorts of Perceptions; but all theſe are originally owing to the powerful Appointment of God uniting a Soul and Body according to theſe Laws.

Thus perhaps in the moſt ſtrict and philoſophical manner of ſpeaking, neither the external Objects, nor the Impreſſions made by them on the Brain, are ſufficient to be the real proper producing or efficient Cauſes of the Ideas in the Mind, ſince Body cannot affect Spirit by any Properties that we know in it. Nor is the Mind itſelf a proper, immediate, ſole or ſovereign Cauſe of her own Senſations or corporeal Ideas; for how ſhould the Mind know what Senſations or Ideas to form or excite, when any particular Strokes are form'd in the Brain, ſince ſhe can perceive no real and natural Jog or Admonition from any corporeal Impreſſions, Traces, or Images? Beſides, if the Mind has any Hint

what Ideas to form or excite, then it already perceives thoſe Objects, or it has thoſe Perceptions, and it is uſeleſs to form a new one.

X. It follows then, that the original, true and proper Cauſe of thoſe Ideas is the prime Almighty Volition of God, as Creator and Preſerver of all Things; which in itſelf being ſimple and eternal, produces all manner of ſimple and complex, modal and ſubſtantial Beings, in their various determined Seaſons, by thoſe Mediums, and according to that Order and Connexion of Things which itſelf firſt eſtabliſhed in the Creation: And the Production of all Things in this manner may be properly called, *The Order* or *Law of Nature.*

XI. Therefore we may juſtly be allowed to uſe the common Methods of Expreſſion in this Caſe, *(viz.)* that the Soul itſelf has theſe Perceptions *naturally*, and that ſhe *naturally* forms theſe Ideas of corporeal Beings; and that the corporeal Objects impreſſing particular Traces and Images on the Brain, are the *occaſional* and *natural* Cauſes of theſe Perceptions or Ideas.

Thus we muſt grant alſo, that the Volition of the Mind to move the Arm or the Tongue, may be called the *natural* Cauſe of the Motion of thoſe Members, for 'tis according to a *Law of Nature*, which God the Creator has appointed; tho' the Influence which that Volition has on that Motion, be not ſo properly natural and efficacious, as to be

be ſufficient in and of itſelf; but the Efficacy rather proceeds from the Almighty Volition of God thus uniting the Soul to an animal Body, according to theſe Laws of his own Appointment *. Of which ſee more afterwards.

XII. 'Tis no difficult Matter to allow this Account of Things to be true. Concerning the Influence that Mind has on Body, or Body has on Mind, and to aſcribe it all to the ſupreme and efficacious Appointment or Will of God, when great Philoſophers now a-days ſuppoſe the mutual Influence of Bodies moving each other not to be ſo evidently the proper, native, and neceſſary Effect of thoſe material Beings on each other, but rather of ſome divine Appointment, or certain Laws of Nature which God has made. Thus we ſay, that the Bowl *A* in Motion ſtriking the Bowl *B* at Reſt, naturally cauſes it to move, or produces Motion in it; although perhaps the Motion of the Bowl *B* more properly proceeds from the efficacious and original Apointment of the Creator, who wills that one

* *Note*, the Words *Nature* and *natural* may be taken in two Senſes; *Firſt*, they may denote an original Power in Matter and Mind, ſufficient mutually to influence each other, ariſing from their very Nature or Eſſence and Conſtitution: Now ſuch a *native* or *natural* Power is denied: And yet this Power may be called *natural*, with Regard to the Conſtitution of Man, as conſiſting of a Soul and Body united; becauſe God has appointed them by his Almighty Will to act in this manner mutually on each other in their State of Union, and thus he has made it a *Law of their Nature.*

one Body ſhould move when another ſtrikes againſt it.

Mr. *Locke*, in Book II. of his *Eſſay*, *Chap.* 23. §. 28. ſuppoſes the *Communication of Motion from one Body to another by Impulſe* to be as hard to be accounted for as the Communication of Motion to a Body by any Thought or Volitions of the Mind: And it is ſtill more juſtly ſuppoſed, that Sir *Iſaac Newton*'s Doctrine of the Influences of Attraction or Gravitation which the Planets have upon each other at ſuch immenſe Diſtances of empty Space, muſt be reſolved into ſuch a Law of Nature or efficacious divine Appointment.

And yet we ſtill uſe the common Methods of Speech, and ſay, that the Bowl *A* ſtriking the Bowl *B*, naturally makes it move; that the Sun naturally cauſes the Planets to move or tend towards itſelf, and thereby keeps them in their ſeveral Orbits. And in the ſame manner we ſay, the Soul forms Ideas naturally by its Underſtanding or perceptive Power, and it moves the Limbs of the Body naturally by its Will: And unleſs we continue to uſe ſuch Forms of Expreſſion, which are the conſtant Language of God and Men in Scripture, and in all natural and civil Affairs, we ſhall almoſt deſtroy the very Notion of *Cauſe* and *Effect* among created Beings, and by introducing the Divine Agency immediately into all particular Effects, and forming our Expreſſions according to it, we ſhall exclude all

all Dependency of created Beings upon each other, and their ſeveral Connexions which the God of Nature and of Order has ordain'd among them.

The Laws therefore, or Appointments which God has made, whereby Body moves Body, or whereby a Spirit moves a Body, or whereby a Body excites Ideas in a Spirit, may all be called *natural*, becauſe *Nature* is that Order which God the Creator has appointed among the Creatures he has made.

XIII. When theſe Traces or Impreſſions are once formed in the Brain, to which ſuch particular Senſations or corporeal Ideas are attatch'd by divine Apointment, it muſt be obſerved that whenever theſe Traces or Impreſſions are repeated or awaken'd in the Brain again, tho' there be no ſuch outward Object preſent, nor any ſuch outward Cauſe to excite them, yet the Soul hath the ſame Ideas or Senſations raiſed, repeated or awaken'd in it; becauſe theſe Ideas or Senſations are immediately attached to thoſe particular Motions in the Brain, and not to the outward Objects, or to the firſt Cauſe of them.

Hence proceed the Powers of *Imagination*, and *Memory*, and *Dreaming*, &c. and for this Reaſon we may feel Hunger and Thirſt, Pleaſure and Pain, even in Dreams, tho' there be no external Cauſes to excite them; and when we are awake we may raiſe Ideas of ten thouſand Shapes and Colours of ſenſible and bodily Objects which are abſent, when they have

have once formed their peculiar and proper Traces on the Brain before.

When the ſame Ideas or Perceptions which we had before are again excited in the Soul, without the Preſence of the ſame Object or the ſame Occaſion, this is called *Memory*, ſuppoſing that we have a Conſciouſneſs that we had this Perception or this Idea before; eſpecially when the ſame Ideas have the ſame Qualities, and are joined or ſituated in the ſame manner as before: But if the Ideas are varied, inlarged, diminiſhed, multiplied, or joined and mingled in Forms and Qualities different from what we had in our firſt Perceptions of them, this is called *Imagination*, or the Power of *Fancy*.

XIV. Tho' our intellectual Ideas, ſuch as the Idea of *Thought*, *Knowledge*, *Will*, *Reaſon*, *Spirit*, &c. are not originally formed in us by Impreſſions or Traces made on the Brain, but by a Conſciouſneſs of and Reflection upon the Powers and Operations of our own Souls, as was ſaid before, yet while we are in this State of Union with the Body, it is highly probable that theſe very Ideas are quickly attatched to ſome Words or Sounds which make their Impreſſions on the Brain; and therefore when theſe Impreſſions in the Brain are again repeated, or theſe Traces awakened by theſe Words or Sounds, the Soul has theſe intellectual Ideas which are attached to them, repeated or raiſed afreſh, and they become actually preſent to the Mind: and thus we are

aſſiſted in the Memory or Recollection even of intellectual Things by animal Nature in this preſent State: for tho' our intellectual Ideas themſelves cannot be traced, nor drawn, nor painted on the Brain, and conſequently can have no ſimilar Impreſſions made there, yet they may be cloſely connected or attached by Cuſtom to certain corporeal Motions, Figures, Strokes or Traces which may be excited or delineated there; which Traces or Motions were firſt raiſed by the reading or hearing *Words* written or ſpoken, which were deſigned to ſignify thoſe incorporeal Ideas or Objects.

XV. When the Soul ſets itſelf by an Act of its Will to recollect any former Ideas, corporeal or intellectual, it is very probable that it employs ſome finer or more ſpirituous Parts of animal Nature to open all the kindred Traces that lie in that Part of the Brain, till at laſt it lights upon that particular Trace which is connected with the deſired Idea, and immediately the Soul perceives and acknowledges it. 'Tis in this manner that we hunt after a Name that we have almoſt forgotten; as for Inſtance, ſuppoſe the Name be *Tompkins*, we think of all the Names that end in *kins*, (viz.) *Wilkins*, *Watkins*, *Jenkins*, *Hopkins*, &c. till at laſt we light upon the Name *Tompkins* which we ſought; or ſuppoſe we ſeek after the Name or Idea of a *Temple*, we rummage over the Traces of *Houſe*, *Building*, *Palace*, *Church*, till we light on the Idea and Word *Temple*. Thus

Thus we have ſeen the Way and Manner whereby the Soul of Man comes to acquire its Ideas at firſt, both of corporeal and intellectual Objects, and that is, by *Senſation* and *Reflection*; we have alſo made a probable gueſs how theſe Ideas are treaſured up and recollected while the Mind is united to the Body.

XVI. But beſides theſe two ſorts of Ideas, there is a third ſort which are properly called *abſtracted Ideas*; ſuch as are not the expreſs Repreſentations of any corporeal or ſpiritual Beings juſt as they exiſt, but are as it were a Part of our Ideas of ſome ſpiritual or corporeal Things abſtracted from the other Parts; or at leaſt they are Ideas drawn from their real or ſuppoſed Properties abſtracted from the Beings themſelves, or from ſome Modes or Affections of theſe corporeal or ſpiritual Beings, or ſometimes from the meer Relations that ſeveral Beings bear to one another. Of theſe *Abſtractions* there are ſeveral Sorts and Degrees, and conſequently there are Ideas which are more or leſs abſtracted.

The firſt Sort of theſe Ideas, which are leaſt abſtracted, are *Ideas of common and general Kinds of Being* drawn from Particulars or Individuals; ſuch as a *Man*, a *Bird*, a *Flower*, a *Pidgeon*, a *Spirit*, &c. Now theſe abſtract Ideas are formed in this manner. I ſee ſeveral *Pidgeons*, I obſerve they are Birds of ſuch a Shape, and Size, and Motion; one is of a dark brown Colour, a ſecond is white, and a third is ſpeckled: but I omit or leave out

theſe

theſe particular Colours, and all other Peculiarities in which they differ, and abſtracting from them the Things in which they agree, I keep thoſe only in mind, (*viz.*) *a Bird of ſuch a Shape, Size, and Motion*, and I call this a *Pidgeon*: Now this is a general Name for all the Birds of that Kind, and this we call an *abſtracted Idea*. So we form the general Idea of a *Spirit*, by conſidering the Soul of *Peter*, *Thomas*, *George*, &c, and leaving out their different Perſonal Properties and individual Circumſtances, we retain only thoſe Ideas wherein they all agree, and call that a *Spirit*.

Note, This firſt Sort of abſtract Ideas may ſtill be called corporeal or intellectual Ideas, according to the Nature of the Objects whence we derive them, tho' they are not compleatly like thoſe Objects, becauſe they repreſent but that Part of them only wherein they agree with others of the ſame Kind.

Now theſe abſtracted Ideas evidently ariſe from a Power that is in the Mind itſelf to abſtract or divide one Part of an Idea from the other, or to ſeperate mingled Ideas, and conceive them apart.

Another Sort of abſtracted Ideas, and which indeed are more properly called by that Name, are *general Relations* which ariſe from comparing one thing with another, and from obſerving the Relations that one thing bears to another; and then the Mind abſtracts thoſe Relations fron the Things which are related,

and

and treaſures up thoſe Relations as a diſtinct Set of Ideas, even while the Things which are related, are neglected or forgotten; ſuch are *Cauſe*, *Effect*, *Likeneſs*, *Difference*, *Whole*, *Part*, &c. I might give an Inſtance thus; when I ſee a Sword wound a Man, or when I am conſcious that my Soul forms an Argument, I conceive the Sword to be the *Cauſe*, and the Wound is the *Effect:* or I conceive the Soul is the *Cauſe*, and the Argument is the *Effect*: Then I reſerve theſe Ideas of *Cauſe* and *Effect* for general Uſe, and apply them very properly to a hundred other Caſes, when I have no further thought of a Sword or a Soul, which occaſioned my firſt Ideas of Cauſality. Theſe are *pure abſtract* Ideas.

Some *abſolute Modes*, *Properties or Affections* borrowed from individual Beings, as well as their *relative Modes*, or *Relations*, will alſo afford us ſuch kind of *pure* abſtracted Ideas; ſuch are the Ideas of *Eſſence*, *Exiſtence*, *Duration*, *Subſtance*, *Mode*, &c. which are formed in this manner. Suppoſe I think of a *Bowl* as ſubſiſting by itſelf, and that it is both round and heavy; I conceive of the Bowl as a *Subſtance*, and of Roundneſs and Heavineſs as *Modes* belonging to it: So when I think of a *Spirit* as a Thing that ſubſiſts of itſelf, and that this Spirit is grieved or joyful; I infer that Spirit is a *Subſtance*, and Joy and Grief are *Modes* of that Subſtance. Then I abſtract the Ideas of *Subſtance* and *Mode* both from the corporeal and the ſpiritual Ideas which

which firſt occaſioned them; and tho' I think no more of a *Bowl* or a *Spirit*, of *Roundneſs* or *Heavineſs*, of *Joy* or *Grief*, yet I retain the abſtracted Ideas of *Subſtance* and *Mode*, and apply them to a thouſand Things beſides.

As the Ideas of *Cauſe*, and *Subſtance*, and *Mode* may be properly called *pure abſtracted Ideas*, ſo the *Cauſality* or the *Subſtantiality* of a Thing, or its *Modality*, are yet *more abſtracted Ideas*, or have another Degree of Abſtraction; for theſe Words ſignify only the View or Conſideration of a Thing as a Cauſe, as a Subſtance, or as a Mode. Such alſo are the Ideas of *Genus* and *Species*, of *Noun*, *Verb*, &c. and a Multitude of ſuch very abſtracted Ideas belong to common Speech as well as to learned Writings.

Here let it be noted, that the Ideas of *Cauſe*, *Effect*, *Subſtance*, *Mode*, *Likeneſs*, *Difference*, and many other abſtracted Ideas of this ſort, are preciſely the ſame Ideas, whether they are drawn orginally from corporeal or from intellectual Beings, and therefore they are plainly different from the firſt ſort of *abſtract* Ideas which are either intellectual or corporeal; nor can theſe be ranked under either of thoſe two Claſſes, for they are Ideas of another diſtinct kind, and make a Claſs of their own, *i. e. pure abſtract Ideas.*

If therefore we confine ourſelves ſtrictly and intirely to thoſe two Things which Mr. *Locke* aſſerts to be the Springs and Cauſes of all our Ideas, *(viz.) Senſation* and *Reflection*,

without admitting this third Principle, *(viz.)* the Soul's Power of comparing Ideas and abſtracting one from another, we ſhall hardly account for the numerous abſtracted Ideas which we have, whereof many are neither intellectual nor corporeal, tho' they are all evidently at firſt deriv'd from corporeal or from ſpiritual Objects and Ideas: and the original remote Springs of them may be Senſation or Reflection, tho' theſe are not the immediate Cauſes of them. See more in the Treatiſe of Logick, *Part* I. *Chap.* III. *Sect.* I.

ESSAY

ESSAY IV.

Of innate Ideas.

SECT. I.

The common Opinion well refuted by Mr. LOCKE.

THE common Opinion of innate Notions and innate Ideas, againſt which Mr. *Locke* ſo earneſtly contends, I take to be this, *(viz.)* That there are ſome certain Ideas of Things, and ſome certain Propoſitions both of Speculation and Practice, or of Truth and Duty, which are *explicitly* wrought into the very Nature of Man, and are born with all Mankind: which Ideas and Propoſitions are ſuppoſed to be the firſt Principles of our Knowledge, and original Rules of all our Judgments and Reaſonings about natural or moral Subjects; that they ſtand in the Soul as *Axioms* or *Maxims*, and the propoſitional Principles of our Religion and Virtue, of our Duty both to God and Man, tho' they lie hid, and we are not actually conſcious of

them till ſome ſpecial Occaſion calls them forth to fight.

The Propoſitions are reckon'd ſuch as theſe,

1. Of the Natural Kind, *(viz.) What has no Being has no real Properties: Whatſoever acts, is, or exiſts: One Thing cannot be the Cauſe of itſelf: 'Tis impoſſible for a Thing to be and not to be, in the ſame Senſe and at the ſame Time: The Whole is greater than each Part*, &c.

2. Of the Moral Kind, *(viz.) Parents muſt be honoured: Falſhood muſt not be practiſed to our Neighbour: Injury muſt not be done: Contracts ſhould be fulfilled*, &c.

3. Of the Religious Kind, *(viz.) There is a God: God is to be worſhipped: God will approve Virtue; he will puniſh Vice*, &c.

Theſe have been ſuppoſed to be actual innate Propoſitions: And all the Ideas of which theſe are compoſed muſt certainly then be innate Ideas, if they are actually exiſtent in the Mind as ſoon as it begins to be; however, neither the Propoſitions nor Ideas may actually appear there to ourſelves, till ſome Occaſion call them forth.

Now thoſe Writers who hold innate Ideas in this Senſe, ſeem to lie under a great Miſtake.

Mr. *Locke* has ingeniouſly and ſufficiently refuted this ſort of Doctrine of *innate Ideas*, and *innate Propoſitions*, in his Diſcourſe on that Subject: wherein he diſcovers that there is no Neceſſity from Reaſon, or from Religion, to admit

admit them; becauſe God having given the Mind of Man a Capacity of forming Ideas of natural and moral Things, and of comparing and joining or disjoining them by Judgment, has ſufficiently furniſhed Men with Neceſſaries for Knowledge: And God having given us a Power of Reaſoning, we are able from the moſt common and obvious Things to infer both his own Being and our Duty conſidered merely as Creatures; and there is no ſuch Neceſſity of his actual implanting in the Mind all thoſe Ideas and long Trains of Propoſitions, whether Natural or Moral, which ſome Men have ſuppoſed to be innate. Thus far I think we may ſafely agree with Mr. *Locke*, who reaſons exceeding well on this Subject, and moſt of his Arguments, I think, are juſt and convincing.

And yet I believe ſtill that many *ſimple Ideas* are innate in ſome Senſe, tho' not actually formed in the Mind at the Birth; and perhaps alſo ſome *general Principles* both of *Truth* and *Duty* may be called in ſome Senſe innate, tho' not in the explicit Form of Propoſitions, Let us conſider things in the following manner.

SECT. II.

In what Senſe many Ideas are innate.

FIRST, The ſimple Ideas of Light and Colours, Sounds, Taſtes and Smells, *(viz.)* Red, Blue, Sweet, Bitter, Loud, Shrill,

Cold, Hot, &c, even all the *ſenſible Qualities* (which are called the ſecondary Qualities of Bodies) with all the infinite Variety of their Mixtures, tho' they are not immediately, actually and explicitly impreſs'd at once on the Mind at its firſt Union to the Body; yet they may be called in ſome Senſe *innate*, for they ſeem to be given to the Mind by a divine Energy or Law of Union between Soul and Body, appointed in the firſt Creation of Man: and this Law operates or begins its Efficacy in all particular Inſtances, as ſoon as thoſe ſenſible Objects occur which give occaſion to theſe ſenſibe Qualities and Ideas to be firſt perceived by the Mind.

The Reaſon why I think ſo is this: The Millions of Impreſſions that are made upon the Senſes by outward Objects, do neceſſarily excite nothing but an equal Variety of Impreſſions or Motions of certain Fibres in the Brain, and form perhaps certain Courſes or Traces of ſome fine Fluid, called the *Animal Spirits*, there. But among this infinite Variety of fibrous Motions in the Brain, or Lines and Strokes which are drawn there, or Traces of the Animal Spirits; none of them do neceſſarily and in their own Nature raiſe in the Soul the Senſations of theſe *ſecondary* Qualities as they are called, *(viz.)* Colours, Taſtes, Smells, Feeling, Sound, &c. ſuch as Green, Blue, Red, Sweet, Sour, Stinking, Cold, Warm, Shrill, Loud, &c. Senſation is a very different Thing from Motion: 'Tis only God the

the Author of our Nature who really forms or creates these Sensations and all these Ideas of sensible Qualities in a Soul united to a Body, and he has appointed these Ideas to arise when such particular Impressions shall be made on the Brain by sensible Objects. And yet Man may be said to form them, because what Hand soever God has in it, 'tis by one uniform Law of Creation or original Appointment, which has a lasting Efficacy through all Generations of Men: And on this Account these Ideas may be so far called *innate*; since 'tis not all the Impressions of Objects on the Organs of Sense, nor the Conveyance of these Impressions to the Brain, could raise or form these Ideas in the Soul, but only the divine Appointment of such Effects, according to Laws of Union which he has established between the Souls and Bodies of all Mankind.

I will not add any thing here concerning our Ideas of those Qualities of Bodies which are called *Primary*, such as the Figure or Shape, Size, Motion and Rest, and Situation of the Parts of Matter: because the Strokes which are formed on the Brain by these Objects or these Properties of Matter may perhaps resemble the Objects themselves; for such kind of Lines, and Figures, Motions, *&c.* may be formed on the Brain itself: And perhaps some Persons may imagine that the Ideas of these corporeal primary Qualities in the Mind are raised naturally and intirely from the meer outward Impressions on the Senses, be-

cauſe theſe Impreſſions are like their Objects; tho' I think there muſt be an almighty Volition of the Creator to give the Soul even theſe Ideas alſo: for the Soul has not proper Eyes to ſee theſe Figures and Motions on the Brain, tho' they may never ſo much reſemble theſe *primary Qualities*, i. e. thoſe Motions and Figures which are found in the Objects without us. And a Soul being immaterial, can receive of itſelf no natural Impreſſions from Matter or Body.

But when we turn our Thoughts to the *ſecondary ſenſible Qualities of Body*, we are ſure that all poſſible Figures, Stamps, Motions, Alterations, Traces, which are made by theſe ſenſible Objects on the Brain, are but *primary Qualities* ſtill; they are nothing but Shapes, Motions, *&c.* and they do not at all reſemble theſe Ideas, Senſations, Thoughts or Perceptions of *ſenſible or ſecondary Qualities* that are occaſioned by ſuch corporeal Motions. What poſſible Reſemblance is there between the Motions of a Fibre of the Brain raiſed by the *Graſs* or the *Sky*, and the Idea of *green* or *blue?* between the Figures or Traces impreſt on the Brain by *Sugar* or *Wormwood* touching the Tongue, and the Ideas of *ſweet* and *bitter*, which are occaſioned by that Touch? Yet God, our Creator hath by an original Almighty Volition ordained, that whenſoever ſuch Motions or Traces are made in the Brain, the Soul by the Occaſion thereof ſhall have ſuch a Perception of *ſweet* or *bitter*, or form

ſuch

ſuch an Idea as *green* or *blue:* And this Almighty Will of God, whereby the Soul comes to have ſuch Perceptions, or to form ſuch Ideas, is an uniform Law of Creation, as I before expreſſed it; 'tis one laſting Appointment, and may be called the *implanting* or *inſtamping* theſe Ideas upon the Mind; ſince no manner of corporeal Motions can have any neceſſary and effectual Influence of themſelves to excite theſe Perceptions in the Mind, becauſe it is a Being incorporeal, intangible and immovable. And indeed this ſort of *innate* Ideas, and in this Senſe, Mr. *Locke* himſelf ſeems to own, *Book* II. *Chap.* 8. §. 13.

SECT. III.

In what Senſe ſome Truths may be innate.

SECONDLY, as theſe *Ideas* may in this Senſe be called *innate*, ſo ſome *Principles of Knowledge* (tho' not explicit Propoſitions) may be in a Senſe innate alſo. It is fully granted that ſuch Axioms as theſe, *Whatſoever acteth hath a Being, the Whole is greater than a Part, nothing can be the Cauſe of itſelf*, &c. are not actually inſcribed on the Mind of Man in its firſt Formation; yet the very Nature, Make and Frame of a rational Mind is ſuch, that it cannot but judge according to ſuch Axioms as theſe: and whatſoever particular Judgments or Propoſitions it forms (tho' it does not deduce them from ſuch explicit general

general Axioms written within itſelf, yet) it always judges and reaſons according to theſe Axioms, and cannot judge contrary to them: They are ſo interwoven with the very Conſtitution and Nature of a reaſoning Being, that they are the conſtant Principles of all its Aſſent or Diſſent in particular Enquiries: And in this Senſe perhaps they may be called *Innate*. They are, (as Mr. *Glanvil* calls them, in his *Vanity of Dogmatizing*, 8°, *p.* 81.) "The "very Eſſentials of Rationality; and if any "aſk how the Soul came by them, I return, "as *Quantity* did by *Length, Breadth and* "*Depth.*"

To determine how great is the Number of theſe Propoſitions is impoſſible, for they are not in the Soul as *Propoſitions*; but 'tis an undoubted Truth that a Mind awaking out of Nothing into Being, and preſented with particular Objects, would not fail at once to judge concerning them, according to and by the force of ſome ſuch innate Principles as theſe, or juſt as a Man would judge who had learnt theſe explicit Propoſitions, which indeed are ſo nearly allied to its own Nature, that they may be called almoſt a Part of itſelf; they are in ſome Senſe the very Nature of the Mind conſidered as judging or as reaſoning, nor is it poſſible for a reaſoning Faculty to exiſt without them.

Therefore I take the Mind or Soul of Man not to be ſo perfectly indifferent to receive all Impreſſions, as a *Raſa Tabula*, or *white Paper*;

Paper; and 'tis ſo framed by its Maker as not to be equally diſpoſed to all ſorts of Perceptions, nor to embrace all Propoſitions, with an Indifferency to judge them true or falſe; but that antecedently to all the Effects of Cuſtom, Experience, Education, or any other contingent Cauſes, as the Mind is neceſſarily ordained and limited by its Creator to have ſuch and ſuch appointed Senſations or Ideas raiſed in it by certain external Motions of the Matter or Body to which it is united, and that while the Organs are good and ſound it cannot have others, ſo 'tis alſo inclined and almoſt determined by ſuch Principles as are wrought into it by the Creator, to believe ſome Propoſitions true, others falſe; and perhaps alſo ſome Actions good, others evil. Therefore I might add,

SECT. IV.

In what Senſe ſome Rules of Duty may be innate.

THIRDLY, there may be ſome practical Principles alſo *innate* in the foregoing Senſe, tho' not in the Form of Propoſitions: I mean thus; that in the moulding of our Souls God has given us Faculties to diſcern the Juſtneſs or Fitneſs of ſuch and ſuch Actions; and together with this Diſcernment he has alſo inwrought into our Souls ſome concomitent Movements to judge aright, at leaſt

leaſt concerning the more general and obvious Inſtances of *Virtue* and *Vice*, *Religion* and *Morality*: Such as, *Contracts are to be kept*; *Truth and Veracity ſhould be practiſed*; *Murder ought not to be commited*; *God muſt be honoured*, or *he that made us has a Right to govern us*, &c. tho' theſe are acknowledged to be much fainter and feebler than Speculative Principles, becauſe they have been more corrupted by Men, as more frequently contradicting their ſenſual Inclinations and vicious Paſſions; whereas in Matters of Speculation, there is no ſuch Oppoſition in our Natures, in their preſent degenerate State.

Yet it muſt be confeſs'd, that at the very firſt Propoſal, when the Terms are underſtood, a rational Being cannot but aſſent to this Propoſition, *He that made me ſhould govern me*; *'tis right and fit that Contracts ſhould be kept.* He cannot but ſee the Fitneſs of theſe moral Propoſitions, as he cannot but ſee the Juſtneſs or Truth of this natural one, that *all the Parts taken together are equal to the Whole*, It ſeems to me to be the very Nature of his Reaſon ſo to judge: His Soul is not therefore equally indifferent to theſe Propoſitions, and to the Reverſe or Contraries of them.

SECT.

SECT. V.

Of the Foundations of Moral Virtue, and of a Moral Senſe or Inſtinct.

THERE has a Controverſy riſen long ſince theſe Papers were written, between two conſiderable Authors, *Whether the Soul of Man judges of Moral Good and Evil, by an inward Principle or Inſtinct, which is called* the *Moral* Senſe, *antecedent to all Reaſonings*; or whether *it is by its Survey of the Moral Propoſitions offered to the Underſtanding, and ſeeing the rational Fitneſs and Unfitneſs of Things, that it judges of them by Reaſoning.* Methinks we need not be much at a Loſs to anſwer this Queſtion. It is plain to me, whenſoever ſuch Moral Propoſitions are offered to the Mind, it judges, or ought to judge of them by ſurveying the Fitneſs and Unfitneſs of Things, the Right and the Wrong, by the Light of Reaſon: But then if you come to aſk, *Why does Reaſon judge that this is fit and right, the other is wrong or unfit,* (viz.) that *Contracts are to be kept rather than broken?* &c. I ſay, it is the very Nature of an intelligent Being to perceive this Fitneſs, and 'tis the Nature of a reaſoning Mind to judge ſo, and it cannot judge otherwiſe when free from all evil Biaſſes: Juſt as when the Eye ſees a round Globe put up into a neat, round, hollow Caſe, it ſees the Fitneſs of theſe two Things

Things to each other; and the Soul judges, and cannot but judge, that there is a mutual Fitneſs between the Globe and the round Caſe, and that there is a mutual Unfitneſs between ſuch a Globe and a ſquare Caſe.

I allow therefore, that there is ſuch a ſort of *Natural Senſe* in the Mind (if it may be called ſo) which beholds theſe Congruities and Fitneſſes of *natural* Things, and their Relation to each other, and which inclines and determines it to judge thus concerning *natural* Propoſitions or Axioms of Truth; ſo that in more open and obvious Inſtances, the weakeſt Mind can ſcarce judge otherwiſe. The Underſtanding is like the Eye of the Soul, it ſees the Fitneſs of the Subject, and predicate to each other, and in ſuch Propoſitions it cannot but ſee it; and thus it judges that they muſt be joined together. It is ſo much the very Nature and Make of the Soul, to ſee and judge of Things in this manner, that I take it to be a Part of Reaſon itſelf, which, as it were, implicitly contains in it theſe natural Axioms of Truth or Principles of Judgment inwrought by the Creator of Souls; not in the explicit Form of Propoſitions, but as Principles and Springs of Judgment and Reaſoning.

I allow alſo in the ſame manner, that there is ſuch a Thing which may be called a *Moral Senſe* in the Mind, which inclines the Man to judge right, and eſpecially in the more general, plain and obvious Queries about Virtue

tue and Vice: But this *Moral Senſe* is ſtill the ſame Thing, is the very Nature and Make of the Mind; 'tis Intelligence or Reaſon itſelf, conſider'd as capable of diſcerning, diſcourſing or judging about moral Subjects. And it contains in it theſe plain and general Principles, of Morality, not explicitly as Propoſitions, but only as native Principles, by which it judges, and cannot but judge Virtue to be fit, and Vice unfit, for intelligent and ſocial Creatures which God has made.

As for the Word *Moral Senſe*, if it be taken to mean any Thing more, that is, a ſort of *pathetick Inſtinct* or *Diſpoſition toward Goodneſs*, I think even this may be allow'd ſo far, that in human Nature there are ſome few Inſtances of it in moſt Perſons, which appear chiefly in the Workings of Benevolence, and Compaſſion in us towards ſenſible Creatures, with ſome inward Averſions to Cruelty, and perhaps alſo ſome ſort of natural Reverence toward the Almighty Power, whom we call God, when we come to know him. Theſe Things are ſome ruinous Remains of that Goodneſs, Virtue or Piety which was natural to innocent Man, and are partly wrought, perhaps, into his animal Nature, as well as in his Soul: Theſe Inſtincts are certain Relicts of a Spur to Duty, and a Bridle to reſtrain from Vice, and many times become an Auxiliary or ready Help to the Practice of Virtue: But 'tis ſtill Reaſon exerciſing itſelf, and judging of the Fitneſs and Unfitneſs

Unfitneſs of Things, by and according to theſe native and eſſential Principles of Reaſoning which I have ſpoke of, that is the only Rule or Teſt of *what is Vice* and *what is Virtue*, ſo far as the Light of Nature can certainly diſcover it; for if it ſhould be left to meer Inſtinct to be a general Teſt or Rule to judge of Vice and Virtue, without the Superintendency of Reaſon, or the final Determination of the Fitneſs and Unfitneſs of Things thereby, the Concerns of Morality and Religion would be left at a very great Uncertainty. This has been well argued and determined by an excellent Writer on the *Foundations of Moral Goodneſs*, in a ſmall Pamphlet, 1728.

Now I don't think any of Mr. *Locke*'s Arguments againſt *innate Ideas*, or *Propoſitions*, have Force enough in them to diſprove the Account I have here given of the Mind's judging of natural and moral Truths, by ſuch ſort of native Principles. Nor do I imagine Mr. *Locke* himſelf would oppoſe this Account: For he owns that there are ſuch Things as *innate Principles*, ſee *Chap.* 3. §. 3. He calls the *Deſire of Happineſs, and the Averſion to Miſery*, that is in all Men, *innate practical Principles*, and ſeems to prove them ſuch, becauſe they continue conſtantly to operate and influence all our Actions; and adds, " That " if we had any innate Truths in the Mind, " we ſhould always feel them influencing " our Knowledge. "

And

And I beg Leave to add by way of Reply, And ſo we do always feel theſe Principles which I have ſpoken of influencing our Judgment whenſoever we judge; therefore, according to his own Argument, they are in ſome ſort *innate* or wrought in us by Nature, tho' (as I have often ſaid) not in the Form of Propoſitions. Theſe are the Springs of our Judgment on natural and moral Subjects: And if any ſhould aſk why I judge ſo and ſo, even in ſelf-evident ſpeculative Principles, or why I decide a Caſe thus or thus in moral Enquiries, which are equally evident; I anſwer, becauſe it is the Make of my Mind, 'tis its very Conſtitution, and it cannot judge otherwiſe: And in particular Propoſitions, whether ſpeculative or practical, the Mind is influenced to aſſent or diſſent by theſe innate Principles, tho' without expreſs Reflexion on them. Now theſe Principles influence the Mind in the ſame manner, tho' not as ſtrongly in all Things, as the *Deſire of Happineſs* or *Averſion to Miſery*, which are allowed to be *innate practical Principles*. After all, it muſt be confeſs'd with Lamentation, to the Shame and Reproach of human Nature, that tho' theſe moral Principles of Judgment in the Mind of Man, if they were well improved, would lead us in the moſt common Caſes to diſcern and judge what is our *Duty*, and what is *Sin*; yet the Prejudices of evil Education, Cuſtoms of Iniquity, worldly Intereſt, our ſenſual Appetites, and many other evil Influences have ſo perverted

and abuſed this Principle of Reaſon in the Mind of Man, that now-a-days the Mind often goes aſtray from the Truth; and inſtead of directing us to Virtue, hath ſometimes been led into groſs Abominations. The Eye of the Underſtanding is ſtrangely blinded, and the Judgment ſtrangely preverted by the Fall of Man; we are led to falſe Judgments of Things by the Corruptions of our Minds, by the unhappy Influence that preſent ſenſible Things have over our whole Nature, and the Empire which Appetite and evil Paſſions have gotten over our ſuperior Faculties. Bleſſed be God for Scripture and the Goſpel, wherein there is a plain Revelation made of our Duty to God and Man; wherein the Method of Divine Grace and Salvation is ſet before us, and whereby, even in this World, we are ſenſibly relieved from the Darkneſs and Error, the Miſtakes and Miſeries, which are the Effects of our Fall, and ſhall be raiſed to perfect Deliverance, to Light, Truth, and Happineſs in the other World, if we ſincerely comply with the Propoſals of Grace and Peace.

ESSAY V.

An Enquiry whether the Soul thinks always.

SECT. I.

Conſiderations toward the Proof of it.

WHEN this great Author, Mr. *Locke*, had prov'd that we are not born with actual Ideas and Propoſitions in our Mind, he comes, *Book* II. *Chap.* 1. to enquire whence we obtain our Ideas: And he wiſely and evidently derives them originally from theſe two fruitful and general Springs, *(viz.) Senſation* and *Reflection.* External Objects furniſh the Mind with the Ideas of ſenſible Things by Senſation; and the Mind or Soul itſelf, by *Reflection on itſelf*, furniſhes the Underſtanding with Ideas of its own Powers and Operations: But ſtill let the Power which the Soul has of *abſtracting* one Idea from another be allowed to be the Fountain of our abſtract and general Ideas, *i. e.* the immediate Cauſe of them:

Then he proceeds to enquire *whether the Soul thinks always*, and he will by no means allow the Soul to be always thinking. I have no Mind to enter into a full Debate of this Matter, yet in a few Words I would take Leave to mention a Reaſon or two, why I am rather inclined to believe the Soul always thinks.

But *firſt*, I ſuppoſe it to be granted by the Perſons whom I diſpute with, that *Body cannot think*, or that *the Soul is not Matter:* For as the very Nature of Matter or Body is *ſolid Extenſion*, ſo I can have no poſſible Conception what Extenſion or Solidity can do towards thinking, judging, reaſoning, wiſhing, willing, *&c.* The Ideas are ſo intirely different, that they ſeem to be Things as utterly diſtinct as any two Things we can name or mention; not Heaven and Earth are ſo different from each other, as Thought and Matter. I can no more conceive what Affinity there is between *ſolid Extenſion* and *Thinking*, than I can conceive any Affinity between *Green* and the *Sound of a Violin*, or *Red* and the *Taſte of a Cucumber*. The Ideas of a *bitter Colour*, a *blue Smell*, or a *purple Sound*, are as clear Ideas in my Conception, and as intelligible Things, as *thinking Body*, *conſcious Matter*, *judging Extenſion*, or *reaſoning Quantity:* But this Point (*viz.*) that Matter cannot think, has been proved ſo largely by many learned Writers, particularly by Dr. *Clarke*, Dr. *Bently*, Mr. *Grove*, and Mr. *Ditton*, that I ſay no more on this Head.

Now

Now to propoſe my Argument for the Soul's perpetual thinking. Since the Soul is not Matter or ſolid Extenſion, if the Soul ceaſes to think, what is it of the Soul that then remains exiſting? I confeſs I have no Idea of any thing that remains. 'Tis not ſolid Extenſion for that is Body or Matter, and that is already excluded by Conceſſion. 'Tis not empty or unſolid Extenſion, for that is pure Space, which in my eſteem is meer *Nothing*, or at beſt an abſtract Idea of the Mind. If you ſuppoſe a Soul to be in the leaſt Degree more denſe or more ſolid than empty *Space*, that is the very Idea which I have of *Body* or *Matter*, let it be never ſo tenuious or ſubtil: So that as far as my Ideas reach, a Soul ceaſes to be, if it ceaſes to think.

Or if you ſhould reply, that there is a *Power of thinking* remaining; I aſk, Is this Power of thinking the Subſtance of the Soul or not? If it be not the Subſtance of the Soul, then there is another Subſtance, in which this Power of thinking inheres. And what is that beſides *meer Space*? Or if this Power of thinking be the very Subſtance of the Soul, that is the Opinion I am ſupporting; only I ſuppoſe, that it never ceaſes from actual Exerciſe: for if ſuch a Power of thinking be the Subſtance of the Soul, and yet it fall aſleep, or be unconſcious, I have no Idea of what remains: Nor can I gueſs how it can awake itſelf again into actual Thought.

I grant the Soul is a *Power of thinking*, but I cannot allow that it is a *Power of not thinking*, or that it has any ſuch power belonging to it. Let any Man uſe his utmoſt Art and Labour to ceaſe Thinking, he cannot do it. He may indeed put the Animal Body into ſuch a Temper, i. e. *Sleep*, as to be unfit to aſſiſt the Soul in ſuch Acts of Memory as are ſuited to its incarnate State, and then the Soul cannot remember its Thoughts or Ideas: But this is not ceaſing to think.

Beſides, if a Soul be extended, be it never ſo thin and ſubtil an Extenſion, it has Limits, or it has not: If it has no Limits, every Soul is infinitely extended, or really infinite: If the Soul has Limits, then it has a Figure or Shape; for Shape is nothing elſe but the meer Limits of Extenſion: And if it has a Shape, is not this Shape minuable, or may it not be maimed by loſing a part?

I would fain know wherein does this Bulk or Subſtance of the Soul thus limited or figured, differ from ſo much meer Space, if it ceaſe to think, and be not more ſolid or denſe than Space is? And again, what Influence can this extended empty Figure or Shape have upon our thinking, any more than ſolid Matter has? If ſolid Extenſion or Matter cannot think, as ſeveral modern Philoſophers have undertaken to prove, how can unſolid Extenſion be capable of thinking? If any Extenſion could think, I do not ſee how Solidity could hinder its thinking. Perhaps the ſtrong-

eſt

eſt Arguments againſt the Power of Matter to think, ariſe from the Extenſion of Matter, *(viz)* that it hath Parts exterior to one another; now this belongs to all Extenſion, whether ſolid or unſolid: And therefore I cannot but wonder a little at thoſe Gentlemen who pretend to prove ſtrongly that Matter cannot think, and yet allow a Soul to be extended, *i. e.* allow unſolid Extenſion to have a thinking Power. Such ſort of Thoughts as theſe, with ſome others have inclined me rather to ſuppoſe the Nature and Eſſence of the Soul to conſiſt in thinking.

I own this ſort of Doctrine concerning the Soul is not only out of the way of vulgar Opinion, but 'tis now alſo in a great Meaſure baniſhed from the Schools and Sentiments of learned Men, ſince the *Carteſian* Philoſophy loſt its Ground in the World. Now tho' I never was, nor could perſuade myſelf to be a Diſciple of *Des-Cartes* in his Doctrine of the Nature of *Matter*, or of *Vacuum*, or of *Plenum*, &c. and I have many Years ago given up his Opinions as to the chief Phænomena of the corporeal World, yet I have never ſeen ſufficient Ground to abandon all his Scheme of Sentiments of the *Nature of Mind* or *Spirit*, becauſe I could not find a better in the Room of it, that ſhould be more free from Objections and Difficulties.

The large and powerful Influence that the Name and Authority of Mr. *Locke* has in the World, has carried away Multitudes into the

Suppoſition that *Extenſion* or *Expanſion*, as well as *Duration*, are the Properties of all Beings whatſoever; and that therefore Spirits as well as Bodies are *expanded* or *extended*, which are but two Words for the ſame Idea; tho' it muſt be owned Mr. *Locke* himſelf is ſo cautious, that I think he doth not any where poſitively aſſert it, not even in Book II. *Chap.* 15. *Sect.* 11. where he thinks it is *near as hard to conceive any real Being without Expanſion as without Duration.*

SECT. II.

Of Dreams, why not remembered.

BUT my Deſign in this Place being chiefly to take Notice of the Sentiments of this great Philoſopher, I ſhall proceed to anſwer the chief Objections which he raiſes againſt thoſe who ſuppoſe that *the Soul always thinks.*

His grand Argument is, that *the Soul ſleeps as well as the Body, and has no Thought when it has no Dream:* Now there are ſome Perſons (ſays he) who never dream, and others that ſleep ſometimes for ſeveral Hours without dreaming; therefore it is plain to him, that all this while the Soul has been or exiſted without Thinking.

Mr. *Locke*'s chief Objection againſt the Soul's thinking in Sleep, may be anſwered by an Explication of what we mean by *Dreams*, of which

which Dreams the Body by the animal Spirits (whatever they be) is the Occaſion, and of which the Soul is conſcious.

Note, by *Animal Spirits* I mean thoſe ſubtile Corpuſcles, whatſoever they are, whereby ſuch Traces or Impreſſions are formed or revived on the Brain which correſpond to our Senſations or Ideas, and which are uſually the Occaſion of them.

Firſt then, there are ſome Impreſſions made upon the Brain by the Animal Spirits, which are ſo ſoft and gentle, that there are no Traces, no Footſtep of any ſuch Motions left upon the Brain: Yet the Soul might be juſt ſlightly conſcious of them at that Moment, and form correſpondent Ideas, tho' both the Traces and the Ideas vaniſh almoſt as faſt as they are formed. Theſe might be called *Dreams*; but they being all forgotten, as tho' they had not been, this is not uſually called *Dreaming*.

Secondly, There are ſome Impreſſions which do, more ſtrongly than the former, effect the Brain, and occaſion Ideas in the Soul, and yet do not with an over-vigorous Tide of Impreſſions delude and confound one another; this is uſually called *Dreaming Sleep*, and theſe Dreams we remember and can relate; becauſe the Soul was ſtrongly and diſtinctly conſcious of them through their ſtrong diſtinct Traces on the Brain which were then made, and in a great Meaſure remain.

Thirdly, There are ſome Impreſſions, which by a two impetuous Flux, and too violent a Throng

Throng of Animal Spirits crowding through the Pores and Paſſages of the Brain, altogether mingle, confound, and deſtroy the perpetual Traces which are made; hereby the Thoughts or Ideas are all confounded and mutually deſtroy one another, ſo that we are rendered incapable of recollecting them.

The *firſt* of theſe is like a ſoft Touch of a Seal upon melted Wax which ſcarce makes any Image, or at leaſt ſuch as are loſt again as ſoon as made, by the meer ſoftneſs of the Wax itſelf not retaining the Impreſſion.

The *ſecond* of theſe is like deep and diſtinct Impreſſions of the Seal upon Wax, yet not ſo immoderate either in Violence or Number as to confound and deſtroy one another: therefore they remain and we remember them.

The *Third* is like a Multitude of violent Impreſſions of the Wax, which perpetually mingle and confound one another, and leave no perfect Image of any thing.

Thus the faint Impreſſions of the firſt kind have much the ſame Effect as the exceſſive Numbers and Violence of the third kind, *i. e.* they leave no diſtinct Traces or Memorials.

The *Firſt* is our common and moſt refreſhing Sleep, which is uſually called *Sleep without dreaming*; and very much reſembles what is often called *Brown Study*, while we are awake; that is, when after ſeveral Minutes of muſing Thoughtfulneſs, if we are ſpoken to or rouſed out of it on a ſudden, we can ſcarce recollect one Thought paſt, or at leaſt

only

only the very laſt Thought we had; becauſe the Traces on the Brain, that excited thoſe ſlighty and paſſing Thoughts, were very faint and ſuperficial. They produce but feeble and indiſtinct Images, like the Sight of a Land-ſkip in the Twilight, which ſoon vaniſhes becauſe the Impreſſions were ſo feeble.

The *Second* more reſembles our common wakeful Thoughts and Actions of Life, of which we can recollect many, at leaſt a little after we have finiſhed them: And theſe are the Dreams which we more diſtinctly remember in the Morning. The Images are ſuch as when we ſee a Proſpect in common Delight, and which abide on the Memory.

The *Third* is like the Deliriums of a Feaver, or the ſtrong and wild Imaginations of a Frenzy, when either ſome violent Impreſſions in an endleſs Variety of Figures and Traces croud upon the Brain, and are impos'd upon the Mind, and ſo far confound one another, that before ſuch diſtemper'd Perſons can give any anſwer to any Queſtion aſk'd them, they have twenty other Images which confound the Ideas of that Queſtion and therefore the Anſwer is abſurd and nothing to the Purpoſe: Now in this kind of Dreams all the Scenes quickly vaniſh by mutual Deſtruction of each other. Theſe are like Millions of Objects ſeen at once in a dazling Sun-ſhine, all indiſtinct and very confuſed.

In the *firſt*, when we awake we think we have not dreamed at all; juſt as when a Man falls

falls into a Swoon, the faint and irregular Motions of the Animal Spirits, together with the languid State of the Brain at that Time, permit not any one Trace to be ſtrong enough to produce any diſtinct Idea in the Mind; and when we awake out of a Swoon, we conclude we had no Thought or Perception all the while. Juſt thus it is when we fall aſleep at Night, when we awake out of it, forgetful of what has paſt, and when we conclude we have not thought at all.

In the *Second*, when we awake we remember both what we did dream, and what the Dream was, either more or leſs. And theſe Dreams look moſt like the Thoughts and Actions of common Life, for in theſe our Reaſon has ſome little Power, tho' not its complete Government.

In the *Third* we remember, perhaps, that we did dream, but we can ſeldom recollect what we dreamt of. Often have I awoke from a Dream, wherein a Multitude of Scenes has been impreſt on the Mind for an Hour or two together, yet with utmoſt Labour I could not recollect enough to fill up one Minute, but only ſhort broken Hints of the dreaming Scene, which very Hints have alſo in a little time vaniſh'd; for the Images and Ideas being joined without any Conduct of Reaſon, but by mechanical and more vehement Motions of the Brain and Spirits, over-ruled the reaſoning Powers, and cannot be remembered by the intelligent Mind; and the Images them-

themſelves or Traces of the Brain are ſhattered, confounded and loſt by the ſudden Hurry and vaſt Diverſity of Motions of the Spirits, when upon waking they fly to the Limbs and Organs of Senſe, to perform the wakeful Functions of Nature.

SECT. III.

Mr. Locke's *Objections anſwered.*

FROM what is ſaid in the foregoing Pages, the Objections of Mr. *Locke* are eaſily anſwered; I ſhall ſet the Chief of them in order here from *Book* II. *Chap.* 1.

I. Mr. *Locke* ſuppoſes, *Sect.* 11, 12, that if the Soul thinks while the Body is ſleeping, then it has its own Concerns, Pleaſures, Pains, apart from the Body, and *Socrates* aſleep and awake, are two *diſtinct Perſons.*

To this I anſwer, (1.) that 'tis ſtill the ſame Perſon, for both the Soul and Body of *Socrates* are employed in theſe Ideas, and that whether ſleeping or waking. The Ideas of his Dreams and of his waking Thoughts, tho' they both exiſt in the Mind, yet both of them may be occaſioned by the Motions of his Blood and Spirits, and they are the Acts or Effects of the Soul and Body united, *i. e.* of both the conſtituent Parts of *Socrates.*

Or, (2.) if it were not ſo, and if the Soul alone were employed in Sleep, yet Mr. *Locke*'s Objection might be anſwered, by ſhewing that the

the Actions of Life, which belong only to the Body as their proper Principle, or only to the Soul, are generally attributed to the whole Man; 'tis the Soul of *Socrates* that philoſophiz'd, and his Body wore a Gown, and yet we ſay 'tis the ſame Perſon, *'tis* Socrates *did them both*: So that there is no manner of Reaſon to ſuppoſe *Socrates* aſleep to be a diſtinct Perſon from *Socrates* when he is awake, tho' the Soul alone were engaged in thinking while he was aſleep, without any Operations of the Brain.

II. Mr. *Locke*, §. 13, 14, 18, 19, ſuppoſes no Body can be convinced that they have been thinking for four Hours together, and not know it, *&c.*

But, it plainly appears by the foregoing Pages, that we may know or be conſcious of ſleeping Thoughts at that Moment, when they ariſe, and not retain them the next Moment; ſo that the Forgetfulneſs of our Dreams never ſo ſoon, is no Proof that we did not dream, or had no Conſciouſneſs of thinking in Sleep.

III. §. 16. Mr. *Locke* would inſinuate, that if the Soul thinks while the Body is aſleep, and unactive, thoſe Thoughts ſhould be more purely the Soul's own Operations, and conſequently more rational.

But it appears from what has been ſaid, that the ſleeping Thoughts of a Man being the Effects of the various and ungoverned Rovings of the Animal Spirits in the Brain, impoſing Images on the Soul, are not *more* regular or rational

rational than thoſe of a waking Man, but far *leſs*; and therefore they are leſs worth our Remembrance; and 'tis no Inconvenience to us, nor Diſhonour to our Nature, that we are ſo made, as to forget ſuch roving and irregular Exerciſes ſo eaſily and ſo ſoon.

IV. Another Objection of Mr. *Locke*'s is this; §. 15. that 'tis not agreeable to the Wiſdom of our Creator to make ſo admirable a Faculty as the Power of Thinking to be ſo idle and uſeleſsly employed all our ſleeping Hours, *i. e.* at leaſt one quarter of our Time, as not to be able to recollect, to treaſure up or uſe of any of thoſe Thoughts for our own or others Advantage.

To this 'tis anſwered (1*ſt*. That there are but few, even of our *waking* Thoughts, which moſt Men can recollect for particular Uſes of Life, in compariſon of thoſe Multitudes and Millions which vaniſh and are for ever loſt as ſoon as they are formed; yet this is not eſteem'd to reflect upon the Wiſdom of our Creator, (who at leaſt in this preſent State) hath thus conſtituted us. Let a Man who has been awake ſeventeen Hours, or a whole Day, try in the eighteenth to recollect what he can of what has paſt in his Mind; and he ſhall hardly be able to fill up one Hour with ſuch recollected Thoughts from which he can draw any proper Inferences, Experiences, or Obſervations, for the Uſe of Life; and it may be as well infer'd that we have not thought ten Hours of that ſeventeen, as that we did not think

think the foregoing Night in our Sleep, meerly upon this Suppoſition that God would not make us ſuch Creatures as to think ſo many Hours to ſo little Purpoſe.

(2. Why may not a thinking Being be ſuffered to think ſome Hours every Night to little Purpoſe, as well as to exiſt without thinking, *i. e.* to no Purpoſe at all. Uſeleſs Ideas are at leaſt as good as no Ideas; and a Soul thinking idly, is as good as a Soul ſleeping.

(3. What if we ſhould ſay, that as the irregular and exorbitant Power of Senſe and Imagination, and its Ungovernableneſs by Reaſon when we are awake in many Inſtances, is owing to our fallen State, ſo our unrecollected and uſeleſs Dreams may poſſibly be aſcribed in ſome Meaſure to the ſame Cauſe? Perhaps innocent Man could manage his ſleeping Ideas better by Reaſon, and make them ſome way ſerviceable to his wakeful Actions.

Or we may borrow from Mr. *Lee* a fourth Anſwer, (*viz.*)

(4. There ſeems to be a conſtant Senſe of Pleaſure in ſound Sleep, which appears by a Reluctancy to be diſturb'd in that Pleaſure, and ſtrong Tendencies to re-enjoy it when we are ſuddenly awaken'd; this is at leaſt as demonſtrable as that we have no Conſciouſneſs at all.

And if it be ſo, then (1.) here's ſomething we are conſcious of when ſleeping; and (2.) 'tis not unworthy the wiſe Contriver of Nature to beſtow an innocent Pleaſure on the

Act

Act of Sleeping which himſelf has made neceſſary to preſerve Life, and improve the Comforts of it.

V. Another Objection of Mr. *Locke* againſt the *Conſtancy of thinking in the Soul of Man*, is his Suppoſition that the greateſt Part of the Time of Infants, both before and after their Birth, is ſpent without thinking, and yet 'tis not ſuppoſed they are without a Soul. See §. 21.

I anſwer, as for the Time before the Birth it is a great Doubt with me whether the rational Mind be united ſo ſoon as moſt People imagine, ſince there is no need of it to give or preſerve the meer animal Life. What if the rational Soul be not united to the Body till the Birth, I ſee no great Inconvenience in it. But, be it when it will, 'tis moſt reaſonable to believe that Infants have Multitudes of their moſt early Ideas, if not all, from Senſation: Before, at, and after the Soul's Formation and Union to the Body, 'tis natural to ſuppoſe that there are numberleſs Impreſſions made on the ſoft and fluid Brain; and why ſhould not theſe convey Senſations of Eaſe or Uneaſineſs, Pleaſure or Pain, to the Soul, as ſoon as 'tis united, perhaps according to the Supply or Defect of proper or improper Nouriſhment? *&c.*

And that 'tis alſo affected with various Senſations from the Brain of the Mother, (if the Soul be united before the Birth) as well as from the various Motions of its own and its

Mother's Body, cannot be reaſonably doubted, tho' the manner of the Communication is beyond our Skill to trace. If there be any Impreſſions made on the Nerves, and conveyed to the Brain of the Infant, which are fit to excite Senſations, and the Soul be then united, I cannot ſee why thoſe Senſations ſhould not ariſe in the Soul of the Infant. If they be ſtrong enough to mark the Infant's Body in a very ſenſible manner, as is generally agreed, ſurely they are ſtrong enough to excite Ideas.

After its Birth 'tis ſtill impoſed upon by the animal Spirits in the Brain, with new Senſations and Imaginations; but the only Reaſon why we ſee ſo little Evidence of Thinking in Infants, is not only for want of Speech or Signs to manifeſt Thought, but becauſe their Experience is ſo ſmall, their Judgment ſo weak, and the Memory ſo ſhort and imperfect, by reaſon of the exceeding Softneſs of the Brain, which can hardly retain any Traces: Nor can the Soul in any rational manner connect many of its Ideas; which for the moſt part, mutually confound one another, and ſuffer it to have but very few clear and diſtinct Perceptions. Now theſe Ideas being all confuſed, are quickly loſt, and vaniſh. As the Brain grows harder, and more capable of retaining Traces, ſo the Memory is confirmed; whence Experience ariſes, Judgment is ſtrengthen'd and taught to act, and the Efforts of a thinking and a reaſoning Nature appear.

From

From this I infer, and agree herein with Mr. *Locke*, (tho' not upon the ſame Grounds and Reaſons) that the Soul of Infants hath very few, or ſcarce any Ideas refin'd or intellectual, or which come by *Reflection*; not for that it does not think, but becauſe its Thoughts are ſtill employed and impoſed upon by the Brain in *Senſations*, as the Brain is employed continually by crouding Impreſſions from the Objects of Senſe and Feeling from within or without.

Thus I have endeavoured to anſwer the chief Objections of this great Writer, againſt the conſtant Conſciouſneſs of the Soul. And indeed ſo far as my Ideas reach, or my reaſoning Powers will help me, *conſtant* or *perpetual Cogitation* ſeems to belong to the very Nature, Eſſence and Subſtance of a Spirit, and that when it ceaſes to think it ceaſes to be. And herein it bears a very near Reſemblance to God, and is the faireſt Image of its Maker, whoſe very Being admits of no Sleep nor Quieſcence, but is all conſcious Activity.

COROLLARIES.

1. Hence it will follow, that the Soul is in its own Nature immortal; for nothing but the Power which hath given it this active Life and Being can deſtroy it. It is entirely out of the reach of all the material World to hurt it: It cannot lay aſide its own Thinking; it cannot put itſelf out of Being: Nor

can we conceive how any other Spirit can make it ceaſe to act, *i. e.* ceaſe to be. Such an active Being as a Spirit cannot be deſtroyed but by Annihilation; and ſurely God, whoſe Right and Prerogative it is to create, or give Being to a Creature, hath not put it into the Power of any Creature to annihilate his Works, or take away their Being.

2. Hence it will follow alſo, that when the Human Body dies, the Soul exiſts and continues to think and act in a ſeparate State; and when it is freed from all the Avocation of Senſations and ſenſible Things, it will live more entirely in the Reflection on its own Operations, and will commence a State of Happineſs or Miſery, according to its own former Conduct; either rejoicing in the Teſtimony of a good Conſcience, or under inward Anguiſh and bitter Self-reproaches from the Conſciouſneſs of its own Guilt.

ESSAY

ESSAY VI.

Of the Power of Spirits to move Bodies, of their Being in a Place and removing from it.

WHEN the ingenious Director of modern Philoſophy treats on this Subject, in his *Eſſay on Human Underſtanding*, Book II. Chap. 23. §. 18, 19, 20. he uſes the Word *Motivity* to ſignify a Power to move Bodies, and by *Mobility* he means the Power of a Being to change its own Place; and makes both theſe to be Properties belonging to Spirits: But let us conſider a little, and enquire whether either of them are the proper native Powers of a Spirit or a thinking Being.

SECT. I.

Of the Power of a Spirit to move Matter.

THAT Spirits do continually put Bodies into Motion, is evident from the conſtant Experience of our own Souls moving our Limbs, and the various Parts of the Body,

which are ſubjected to voluntary Motion: And that Angels have many a time excited Motion in ſeveral Parts of the corporeal Word, is manifeſt to thoſe who believe the Scripture. It is alſo clear, beyond all Diſpute, that God, the infinite and Almighty Spirit, hath created the material Univerſe, and has put the ſeveral Parts of it into Motion as he pleaſes. But the Queſtion is, Whether any created Spirit hath any native or innate Power in itſelf to move any Part of Matter? Whether this Power be eſſential, and belong to its Nature? Whether its Thought or Will can effect any Change whatſoever in material Beings; Or, whether the World of *Bodies* and the World of *Minds* are not ſo entirely different and ſeparate in their whole Nature, Subſtance and ſpecial Properties, that they cannot poſſibly have any Communication with each other, except by a particular Appointment and Commiſſion from God their common Creator and Sovereign?

In the *Third* Eſſay, which treats of the *Original of our Perceptions and Ideas*, we have found, that neither the Motions, which are raiſed within a human Body, nor the Impreſſions which are made on the Organs of Senſe, or on the Brain, by outward ſenſible Objects, are of themſelves and in their own Nature ſufficient to raiſe any Ideas or Senſations in a Spirit: But that all the whole Train of Senſations and corporeal Ideas, which belong to human Nature, are originally owing to Divine Appointment, uniting one particular

Spirit

Spirit to one particular Animal Body, according to certain Laws of his own Preſcription. And perhaps a few more *Conſiderations* may incline us to believe, that all the native Powers of a Spirit are not ſufficient in themſelves to move any Part of Matter whatſoever, without the ſame Divine Appointment.

Conſideration I. If Spirit be entirely void of all Solidity, that is, if a Spirit be not Matter, 'tis hard to conceive how it ſhould originally, or in its own Nature, have a Power of itſelf to move Matter. It cannot do it by *Impulſe*; for there can be no Contact, whether immediate or mediate. Nor hath it originally or naturally in itſelf a Power to move Bodies by *Volition*; for there is no natural connexion betwixt my willing a Stone to move, and its Motion: I may will it ten thouſand times, and it lies quieſcent ſtill: Nay, tho' it be but a Feather or a Grain of Duſt, I cannot conceive how my own Volition, or even the ſtrongeſt Volition of an Angel, ſhould excite Motion in it, unleſs he has a particular Commiſſion from the Almighty Spirit: And if it be ſo, thence it will follow, that the Motion of the Stone or Feather, which is owing to ſuch a Divine Commiſſion, depends not ſo ſtrictly and properly on any native eſſential Power or Influence of the Angel's own Volition, but rather on the Divine Volition as the prime or efficacious Cauſe.

And this perhaps is the true Reaſon why our animal Spirits, Nerves, Muſcles and Limbs

are moved at the Command of our Thoughts or Will, *(viz.)* becauſe God the Creator has efficaciouſly decreed or willed from the Beginning, and appointed it now as a Law of Nature, that ſuch a particular Machine of Matter or Fleſh, or any of the Limbs of it, ſhould move when ſuch a particular Spirit willed it: And if we add here, that God has alſo appointed that this Spirit ſhould have ſuch ſpecial Ideas or Conſciouſneſſes according to ſuch peculiar Motions or Impreſſions on this animal Body, we have the chief Part, if not the whole Union between Soul and Body deſcribed, as I have ſhewn in a foregoing Eſſay.

Conſid. II. That a Spirit cannot of itſelf originally move any Part of Matter, will appear more probable, if we enquire of our Opponents, what Quantity of Matter, or what particular Parts of Matter, any Spirit can be ſuppoſed to move. Surely a created Spirit of itſelf, and by its own eſſential or native Powers, cannot move all Matter or the whole material World; that would put the Univerſe of Bodies into the Power of every ſingle Spirit, which is very abſurd, and contrary to all Experience and Reaſon.

If its Power of Motion be confined to a limited Quantity of Matter, what is it that limits this Quantity? It cannot be the Dimenſions or Shape of the Soul; for a Soul is not ſuppoſed to have any Shape, Dimenſions or Magnitude: Or if it had, I have ſhewn already, and ſhall ſhew further, that this cannot give

give any Power to move Matter, becauſe theſe Dimenſions have no Solidity and cannot touch or impel a Body. What is it then but the Will of God, that determines what Quantity of Matter every Spirit ſhall have Power to move? And this is the very Point which we are proving.

Well; but let us imagine, that a common human Soul had a native Power to move ſome Quantity, ſuppoſe ſix Foot of Matter indefinitely; yet till it be united particularly by the Will of God to a certain individual Body, this individual Quantity of Matter which is moveable by it, is not particularly determined: Then every Spirit has the Liberty of a wide Range indeed, and may move indifferently ſix Foot of Matter, any where through the World, or what ſix Foot of Matter it pleaſes; it may rove from Place to Place through the Earth, and by moving ſo much Matter ſucceſſively may cauſe ſtrange Alterations in the material Syſtem, and diſtribute Bleſſings or Miſchiefs through the Univerſe.

Again, Is it reaſonable for us to ſuppoſe, that any Spirit, as *Adam*'s for Inſtance, ſhould be eſſentially, naturally, and of itſelf able to move any ſix Foot of Matter in the Univerſe, where it pleaſes; and yet that it ſhould from the very Moment of its Exiſtence be confin'd and reſtrain'd to move only the Body of *Adam*? And that as ſoon as it is created, and come into Being, it ſhould be cut off from its own proper

per eſſential Power and Liberty of moving any thing indefinitely of ſix ſquare Feet, and be limited only to move that very ſix Foot of Fleſh and Blood? Can we ſuppoſe the Spirit of Man, even innocent Man, in the Glory of his Creation-State, ſhould be formed in ſuch Bondage, and brought into Being under ſuch a narrow Reſtraint of its own natural Powers? Was Man, who was made after the Image of God, created in a State of ſuch Impriſonment, with his native Faculties ſo far cramped and confined?

Or if we ſhould ſo far conſent, that the *Platonick* Philoſophy is true, as to ſuppoſe that a Spirit, which was naturally able to move any Parts of Matter before, is thruſt down into this Body of ſix Foot, and confined to it as a Priſon, wherein it can move only its own Houſe as a Snail does; then a Diſmiſſion from the Body would ſurely reſtore it to its native Power of moving ſix Foot of Matter any where: And why then might it not by its own Will and Power aſſume another Body, or why may it not reaſſume its own Body again, and ſet the Muſcles, Blood and Juices into all their proper vital Motions? Or if it could not do that for want of Skill in the Conſtruction of Animal Nature, yet why may it not put the dead Body in the groſs into Motion, and become a Ghoſt with a moving Carcaſe, and fright the World? And yet it might ſecure itſelf from the Aſſaults of Men, by raiſing the Body into the

the Air when it pleaſes, upon the firſt View of Danger.

Beſides, would not this Opinion give to a wicked Spirit ſuch a Releaſe at the Death of the Body, by reſtoring it to its native Power of moving ſix Foot of Matter, as to enable it to do an unknown Quantity of Miſchief in the World? How many Spirits go out of the Body full of Rage and Revenge, and what Murders would they commit?

A good Spirit indeed, when releaſed from the Body, would have the ſame Liberty and Range to do extenſive good Offices to Men: But what a Theatre of Conteſt and Combat would this habitable World be between the pious and the wicked Spirits, according to their different and contrary Inclinations and Deſigns of Good and Evil, if Spirits of themſelves could move indefinitely ſix Foot, or even but ſix Inches of ſolid Matter?

Again, If a good Spirit departed from the Body had Power to move any ſmall Portions of Matter indefinitely, would not its Re-union to one particular Body at the Reſurrection be a ſore and unhappy Retrenchment of its native Liberty, and a Confinement to a Priſon again? And is this ſort of Philoſophy ſuited to the bleſſed Idea which the Scripture give us of the Reſurrection of good Men? Is not the Reſurrection of the Body deſigned for their greater Advantage and Happineſs? And is it not more reaſonable to believe, that it ſhall render them capable of more extenſive Service, by enabling them

them to have ſome Communications with the material World again, from which they had been cut off by the Death of the Body?

Upon the Whole therefore, is it not far more agreeable to the Rules of Reaſon and Religion, to ſuppoſe that a Spirit can of itſelf move no Part of Matter, nor hath any Power over it, but by the particular Appointment of God? And doth not this better account for the firſt Union of each particular Spirit to its own Body, as a Part of the providential Government of the World by the Will of God? Doth it not alſo better adjuſt the Powers of departed Spirits, by reducing them to their native Impotence of moving Matter? And give a better Repreſentation of the Reſurrection and the Re-union of each Spirit to its own Body?

Conſid. III. The Argument will ſtill grow upon us, and carry further Force in it to prove that a Spirit has not in itſelf a native Power to move Matter, when we conſider how exceeding limited is the Power that a human Spirit has over its own Body to which 'tis united; and thence it will appear, that this Power, with its ſpecial Limitations, was given it meerly by ſpecial Commiſſion from God himſelf. This Spirit, by all its Volitions, can move nothing but thoſe particular Parts of the Body which God has ſubjected to voluntary Motion, and for which proper Muſcles are provided, together with the nervous Powers which are neceſſary to move thoſe muſcular Parts.

Parts. It cannot make the Pulſe of the Heart, which is a great Muſcle, beat quicker or ſlower; it cannot accelerate the Motion of any of the Juices, *(viz.)* Blood or Lymph, *&c.* in any of the containing Veſſels, it cannot alter the Shape or Situation of any Atoms of which the Fleſh, Blood and Bones are compoſed, by an immediate Act of the Will upon them; nor can it move any Member, except only in that Way of muſcular Motion which God has appointed in the Engine of the human Body.

In this View of Things there are ten thouſand times more Motions of which the ſeveral Parts and Particles of a human Body are capable, than thoſe few which the Soul has any immediate Power to produce. Now if the Soul had an innate or native Power to move Matter, might it not chuſe which Part of its own Body it would move, and in what manner it would move it? If it muſt be confin'd to one Body, yet how comes it to be ſo wretchedly reſtrained from moving the ſmaller Parts of Nature, and from rectifying any of the Diſorders of the Solids or Fluids in that Body by an Act of its Will? Why is it ſo poorly limited to a few groſſer Motions of the Members? I confeſs, in the main theſe groſſer Motions ſerve the common Purpoſes of animal Life in this World; but this cannot preſerve the Body in a State of Health, or ſecure its Eaſe and Activity: What! could a Spirit move any Matter indefinitely before Union, and can it not move any Parts of that Mat-

Matter to which it is particularly united? Can it by its native Power move the whole Bulk of the animal Body, or the larger Parts of it, and yet not put the minute Parts of it in Motion? Doth not this Confinement and Limitation of its Power ſufficiently ſhew whence all this Power comes, and that 'tis not eſſential to its Nature, but all owing to the ſpecial Ordination and Will of God, in uniting ſuch a Body to ſuch a Spirit, according to certain Rules of his own preſcribing?

If we ſuppoſe a Spirit to have no Power of itſelf to move an Atom of Matter, except by particular divine Commiſſion; then it is eaſy to conceive that God in great Wiſdom and Goodneſs, when he united the human Mind to the Body, has given it a Commiſſion to move ſuch Parts as are fitted in the main to ſerve the Uſes of Animal Life, and no more. In this Caſe it is a Bounty and Benefit, to have the Government over ſome Part of the material Creation; but in the other Caſe 'tis a Reſtraint, and cutting ſhort of natural Power: And if that were true, then we might infer with Juſtice that groſs Abſurdity, *(viz.)* that if a Soul in its own Nature hath Power to move Matter indefinitely, but by Union 'tis reſtrained, then a Spirit not united to a Body would have Power to move all the Parts of that ſame Body more univerſally than the Spirit which is united to it; and that conſequently *Milo*'s Spirit, when his Body is dead, and itſelf diſunited from it, can move and change

change thoſe very Parts and Atoms of it which it could not move or change when the Body was living; and if it had Skill enough to know which Parts to move, it might reſtore the Body of *Milo* to Motion and Life again, as was intimated before.

Conſid. IV. Another Argument to prove that Spirits have no eſſential or native Power to move Matter, is this, that the evil Angels, who are full of Malice, Wrath and Envy, would employ their Powers in wild Deſtruction among Men. Devils are ſuppoſed to have Reſidence among Mankind to tempt them to Sin: But they would not content themſelves with the meer Temptation of Souls, but would be always making wretched Miſchief in this material World, and over-ſpreading it with Calamities and Deſolations, with Plagues and Fire, with Earthquakes, and Miſery, and Death, if they had an innate and natural Power to move Bodies. One Foot or two of ſolid Matter divided by an evil Angel into Millions of Particles, and ſhaped and moved as he pleaſed, perhaps would form Peſtilences enough to give Diſeaſe and Death to Millions of Men, would taint and corrupt the Air thro' many Regions, and kill a great Part of the Animal World. How ſmall and ſubtil are the Particles of Matter which the Sting of a Waſp infuſes into the Body, the Biting of the Spider called *Tarantula*, or the ſharp Tooth of a Viper? And yet what diſmal Effects have been ſometimes produced in the Body

Body of Man thereby? And ſurely evil Angels, by their long Acquaintance with our World, know theſe Secrets in Nature: And what horrible Tortures, what lingering or ſudden Deaths might they inject into the human Race, by forming ſuch poiſonous Atoms and diſperſing them among Mankind?

But on the contrary, we find that a Legion of Devils could not enter into a Herd of Swine, nor drown them, till the Son of God gave Commiſſion, *Matt.* viii. 31, 32. And I think it is a much more probable way of accounting for all the Miſchief that is done by evil Angels in the material World, to ſuppoſe that they have no natural or innate Power of themſelves to move Matter, but as they have ſuch and ſuch a Proportion of Air or Water, or other Bodies, put under their Power by the Will of God; or as ſuch particular Men or other Animals are given up to their Influence by a limited Commiſſion upon juſt Reaſons and for ſpecial Purpoſes in Providence. *Satan*, the *Prince of the Power of the Air*, could not raiſe a Tempeſt to blow down the Houſe where *Job*'s Children were feaſting, till God gave him Power and Leave to do it; and you ſee with what Limitation God lets him afflict the Body of *Job*; *Touch not his Life*, *Job* ii. 6. nor could the Rage of that malicious Spirit exceed theſe Bounds: And doubtleſs his Dominion in the Air and the Region of *Meteors* is limited alſo, tho' he be called the *Prince* of it.

In

In the ſame manner we may argue, how many of the preſent Calamities and Miſchiefs in this lower World would the Benevolence and Compaſſion of good Angels prevent, if they had Power to move Matter when and how they pleaſed? But we find in Scripture when they do any ſpecial Services in this lower World, 'tis God that gives them a particular Commiſſion.

Object. Perhaps it will be ſaid here, that God is a Spirit, and he has Power, even a natural and unlimited Power, to move the whole Univerſe of Matter, or any particular Parts of it, as he pleaſes; why then may not other Spirits, which are formed after his natural Image, and are ſaid to be his Offspring, have a native Power to move Matter alſo, in certain Proportions, according to their Order or Rank in the ſpiritual World?

To this I *anſwer*, that the great God has a natural, eſſential, and ſelf-ſufficient Power to create Matter, and make it exiſt with all its Modes of Figure and Motion; no wonder then that he ſhould have a natural Power to move it; but no ſuch Powers or Properties of creating Matter ſeem to belong to any created Spirits, tho' in many other Inſtances they are made like himſelf: Tho' God has an unlimited Influence over the Worlds of Matter and Mind, yet created Spirits may have no Power in a World ſo foregin to their Natures as this material World is. The two Worlds of Mat-

ter and Mind are not within each other's Reach or Influence till God their common Maker appoint it.

Beſides, why may we not ſuppoſe it to be a peculiar Prerogative of the great God to move all or any Matter, that ſo the Material World may be more entirely under the Government of his Will, and not be ſubjected to the capricious or malignant Inclinations and Volitions of any of his intelligent Creatures, and that he may maintain his Sovereignty in a more immediate Manner over all the Worlds which he has made? Is it not more proper to ſuppoſe that God has the Power of commiſſioning ſuch a particular Spirit to move ſuch an Animal Body, and to appoint what particular Matter any Spirit ſhall move, and what Parts of Matter ſhall have Power to impreſs Senſations on any particular Spirit?

If Spirits could move Matter without his Commiſſion, why might not Spirits receive Impreſſions alſo from Matter without his ſpecial Appointment? And if theſe mutual Influences might be without his Order, what infinite and perpetual Tempeſt and Tumult would be raiſed thro' the Univerſe by the everlaſting and promiſcuous mutual Agencies of Bodies and Spirits upon one another, which the Creator and Governor of the World had never united by any Appointment of his? One might form a Scheme of immenſe Confuſion, and Millions of jarring Events, of *Milton*'s War of Angels in Heaven renewed daily on the Earth,

Earth, of Mountains torn up by the Roots, with all their Woods and Foreſts, and whirl'd into the Air, and of Oceans raiſed high and whelm'd over whole Nations by the ſingle or united Force of the Legions of Hell? What extenſive Deſolation and ruinous Miſchief would overſpread the Face of the whole Creation, if the two different Worlds of Bodies and Spirits had a natural and mutual Agency or Power of acting upon each other? Two Comets, or two Planets, with all their Contents, and all their Inhabitants, encountering with full Force in the Mid-heaven, would not raiſe ſuch a tremendous Storm, nor ſpread ſuch a Scene of muitiply'd Confuſions, Terrors and Devaſtations, as theſe two Worlds of Mind and Matter, upon Suppoſition of their natural and unlimited reciprocal Agencies and Influences.

SECT. II.

Of Spirits being in a Place, and removing thence.

LET us now proceed to the next general Head, *(viz.)* the *Mobility of Spirits.*

As this Author, Mr. *Locke*, has aſcribed *Motivity* to Spirits or a Power to move Body, ſo he has aſcribed *Mobility* to them alſo, or a Power to move themſelves from place to place. Now if *Mobility* be aſcribed to Spirits, or a Power to change their Place, then it neceſſa-

rily follows that *they are in a Place*, and have a proper relation to Place. And if we will ſeek after and follow clear and diſtinct Ideas, this *Locality* will be much the ſame as Bodies have; for Mr. *Locke* himſelf juſtly ridicules the Diſtinction between *Locus* or *Place*, as applied to Bodies, and *Ubiety* or *Whereneſs*, which is aſcribed to Spirits, as 'tis explained by ſome Philoſophers.

It is evident that if Souls have a *Ubi*, as it is called, or a Place in which they are ſo as to be included within it, or to have a real and proper Situation or Reſidence in it, they are certainly circumſcribed in that *Ubi*, and are limited to a certain Quantity of Space, and muſt have certain meaſurable Diſtances from the Bodies round about; and this I think is *proper Exiſtence in a Place:* So that *Place* or *Locality* and *Whereneſs* or *Ubiety*, as thus explained, are really the ſame Things, if we ſtrictly conſider the Ideas of them: And tho' I ſhall endeavour to give another Sort of Notion of the *Ubiety* of Spirit in this *Eſſay*, yet in this Notion of it 'tis the ſame with *Place*.

Now if Souls or Spirits are properly in a Place, I will prove firſt that they muſt be extended, they muſt be long, broad and deep; and then they muſt be of ſome Shape or Figure, or be liable to all the Inconvenience to which Dimenſion and Shape expoſe them.

Firſt, If a Spirit is in a Place (ſuppoſe a Parlour) it has a meaſurable Diſtance from the North Wall and from the South: if theſe

two

two Diſtances added together make not up the whole Length of the Parlour, then the Soul is plainly extended, and its Extent is equal to that Defect or Difference of Meaſure. But if thoſe two added Diſtances do make up the whole Length, then the Soul is excluded, and it is not in a Place: *Quod erat demonſtrandum.*

Secondly, If the North and South Walls of this Parlour by ſome mighty Force be moved uniformly towards one another, they will at laſt meet and be contiguous or touch each other, or elſe the Soul will hinder their touching; if it does hinder their Touch, then 'tis ſolid as well as extended, and you make a Body of it; if it doth not hinder their touching, then it muſt be unſolid Extenſion, and muſt penetrate the two contiguous Walls, and muſt have one Part of it penetrating one Wall (ſuppoſe an Inch or two) and the other the other; and thus 'tis extended alſo: or elſe it muſt be acknowledged to be excluded from all Place, which is the Thing that was to be proved.

But if a Soul be extended, it has Dimenſions, 'tis certainly ſhaped or figured; for ſince 'tis not infinite, this Extenſion has Limits on all Sides; and, as has been elſewhere mentioned, the Limit of all Extenſion whatſoever is Figure or Shape.

But if a Spirit has any Shape or Figure, I would aſk whether it could not loſe Part of this Shape? I am ſure our Ideas will allow it. Our cleareſt Ideas muſt allow poſſible Diviſion to every extended figured Being: Whe-

ther it will continue after Diviſion to be a Soul and to think or no, is another Queſtion; but what is actually a long and broad and deep Subſtance, and does not fill all Place, doth certainly allow one part of this Subſtance to fill one Place, and another another; and why may not the two Parts of this Subſtance be divided, and thus fill two diſtant Places as well as two adjacent Places? 'Tis in vain to talk of its being one *Continuum* and being indiſcerpible, ſince 'tis plain we may conceive of any extended infinite Subſtance as divided, and as exiſting in two Places when divided. Surely Diviſion does not nullify either Part of what was before an extended and ſubſtantial Being. This may be ſaid indeed; but 'tis ſaid not only without Ideas, but contrary to them.

Again, if my Spirit has any Shape, 'tis ſurely commenſurate and correſpondent to my whole Body, or to ſome part of it. Then I would enquire, whether the Soul may not be maimed by the ſudden Stroke of a Sword or Bullet which carries off that part of the Body? Or whether it contracts or ſhrinks up itſelf to avoid the Wound, and thus grows denſer in that Part than it was before? But ſuch a Suppoſition would imply a Degree of Solidity, and reduce it into Body. In ſhort, if its Extenſion be any Thing different from empty *Space*, and if it has a Shape, then according to our cleareſt Ideas it muſt be diviſible in its own Nature, even tho' it ſhould be never ſo nimble and watchful to avoid any corporeal Weapons,

Weapons, or tho' it ſhould be ſubtil enough to penetrate them; for if it be a finite figured Being, it muſt be diviſible.

Again, I would query, whether or no the one whole Power of Cogitation be extended thro' the whole Shape and Bulk of the Soul, or whether a diſtinct leſſer Power belongs to every Part of it? If Cogitation belong to every Part of it, there are ſo many cogitative Beings, or ſo many thinking Powers in it, as there are Parts of Extenſion: If the whole is one cogitative Power, then I would enquire, is the Power of Thinking as long, and broad, and deep, as the whole Soul is? Does the whole Dimenſion of the Soul operate in every Thought, or a Part only? Is the whole Length of the Soul engaged in the ſhorteſt and ſlighteſt Thought? Or does one Part of the Soul perceive one Part of a large Object and another another? Then a ſmall Part of the Soul would perceive a ſmall Object, and every Part of the Soul would be a diſtinct conſcious Being. *Again*, If part of the Soul were ſeparated, whether the ſame Power of Cogitation would remain entire in the other Part, or would this Power be any way impaired or maimed *? In ſhort, it ſeems

* Theſe Sort of Queſtions are by no Means ſo ridiculous and of ſo little Weight in this Argument, as ſome Perſons would pronounce them. The learned Dr. *Samuel Clarke* is known to favour and ſuppoſe the Extenſion or Expanſion of the Soul, and yet he confeſſes the Queries about the Extenſion and the Diviſibility of a conſcious Being or Spirit to have conſiderable Difficulty in them.

Theſe

to me, that thoſe who ſuppoſe a Spirit or thinking Subſtance to be extended, do firſt conceive of the Power of Thinking, and then conceive of an extended Being, and join theſe two in their Minds till they think they have made them one, tho' the Things themſelves have no Cognation.

Upon the Whole, as it cannot be conceived how a Power of thinking can have any *Contact* with Body, ſo neither can I conceive in proper Speech, how a Being whoſe Nature conſiſts in Conſciouſneſs and Activity, without Extenſion or Shape, can have any *Nearneſs* or *Juxta-poſition* to Body: For if it be near a Body, then it may be nearer and nearer till at laſt it touches, or till the Surfaces of Body and Spirit unite. But I can have no Idea of a

Theſe are his Words, as they are cited in a *Defence of his Demonſtration of the Being of God*, p. 43. "The "only Properties we certainly and indiſputably know of "Spirits, namely, *Conſciouſneſs and its Modes*, do prove "that they muſt neceſſarily be *indiſcerpible* Beings. And "as evidently as the known Properties of Matter prove "it to be certainly a *diſcerpible* (or diviſible) Subſtance, "whatever unknown Properties it may be endued with; "ſo evidently the known and confeſs'd Properties of *im-*"*material Beings* prove them to be *indiſcerpible*, whatever "unknown Property they likewiſe may be endued with. "How far ſuch *Indiſcerpibility* can be reconciled and be "conſiſtent with ſome kind of *Expanſion*, that is, what "unknown Properties are joined together with theſe "known ones of *Conſciouſneſs* and *Indiſcerpibility*, is "another Queſtion of conſiderable Difficulty." 'Tis plain by this Confeſſion, that that great Philoſopher was much more ſure the Soul was conſcious, indiviſible and immortal, than he was or could be that the Soul was extended.

Soul's

Soul's touching a Body, any more than how a Thought can touch or lie near to a Piece of Fleſh or a Bone: For the very Idea of a Thinking Power, as well as of a Thought, is utterly and entirely diſtinct from the Idea of Body, as any two Ideas can be; and I think Mr. *Locke* ſeems to allow it, §. 32. and in other Places.

SECT. III.

The firſt Objection againſt the Locality of Spirits anſwered.

YOU will immediately exclaim then, and with ſome Shew of Reaſon too, What! cannot a Spirit be in a Place? Is not your Soul in your own Body? Surely it cannot be every where, for then it would be infinite: it muſt therefore be ſomewhere, and that *ſomewhere* muſt be your Body, becauſe it acts upon your Body; for no Being can act upon any Thing at a Diſtance, according to the old Maxim, *Nihil agit in diſtans.*

Anſ. 'Tis time, I think, that this Axiom or Maxim ſhould be now exploded by Men of Learning, ſince the Philoſophy of Sir *Iſaac Newton* has prevailed in the World. We find in his Syſtem, the Sun and the Planets, which are at prodigious Diſtances, act upon each other by an attractive Force, which is called the *Law of Gravitation*; which Force is inceſſantly influencing all Parts of Matter to act upon all other Parts of Matter in their Proportions

tions, be they never ſo diſtant. But what is this Force of Attraction or Gravitation, but a powerful Appointment of the Creator? Now, if Bodies can act upon each other, without Contact or Proximity of Place, and that by the powerful and general Volition or Appointment of God, we may well allow Spirits to act upon Bodies, without any Proximity to them, by the ſame divine Appointment or Volition.

It is granted, that the Soul, tho' it be ſuppoſed to have its chief Reſidence in the Brain, yet moves the Limbs only *mediately* by Nerves or Strings which go from the Brain to thoſe Limbs which are moved; but it moves the Origin or Extremity of thoſe Nerves, or ſome ſpirituous Parts about them, which are in the Brain *immediately* by its Will; that is, when the Soul wills to move a Limb, thoſe Nerves are firſt moved. Now I would enquire, Does it move theſe Extremities of Nerves ever the eaſier for being placed near them? Not at all: For the Soul of a Ploughman knows them not, and yet moves them as regularly and as well as a Philoſopher. None of our Souls are conſcious of theſe Nerves, or the Extremities of them, tho' your Philoſophy ſhould place the Soul never ſo cloſe to them; nor does its Power of Motion extend to any of the Atoms or Fibres which compoſe thoſe Nerves which are ſo near the Soul, ſo as to be able to replace them, if diſcompoſed: And yet as ſoon as the Soul wills to move the diſtant Limbs, according to the Laws of animal Nature, which God

God has ordain'd, theſe diſtant Limbs obey and move, the Soul being ignorant whether there are any ſuch Nerves or no, tho' it be ſuppoſed to reſide among them, or cloſe to them. You ſee then, this ſuppoſed Situation or Reſidence of the Soul, in any Part of the Body whatſoever, attains no manner of Advantage towards its putting thoſe Parts of the Body into Motion, nor towards its better Knowledge of that Part where you ſuppoſe it to reſide, as ſhall be proved immediately.

But at preſent I would endeavour to make this Matter yet plainer concerning the Soul's Power, or rather Impotence, to move Bodies: And to that End let me put this Queſtion, *(viz.)* Whether a ſeparate Soul or Spirit muſt be locally and actually ſpread through a whole Mountain, and co-extended with it, if God gave it Commiſſion in an immediate manner to move a *Mountain*, ſince a Mountain is only a Heap of earthy Particles, and not an organized Body, and therefore is not to be moved by Strings or Springs of Nerves and Muſcles, as an Animal Body is? And whether the ſame Spirit muſt ſhrink itſelf up to the Size of a *Grain of Wheat*, if God gave it its next Commiſſion only to move ſo ſmall a Thing? Whether theſe Contractions or Shrinkings of the Spirit would be performed by mutual Penetrations of its own Parts? Or rather whether God's powerful Appointment both of the *Mountain* and the *Grain* to be moved at the Volition of the Spirit, be not a ſufficient

Philo-

Philoſophical Account of this Spirit's Power to move the Mountain or the Grain by its Volition without Proximities or Contacts, Diffuſions or Contractions.

I would enquire yet further, Whether God could not appoint my Spirit, while 'tis united to my Body to exert a Volition, which ſhould in an immediate way move a Grain of Wheat placed at two Yards Diſtance from my Body? Did he not give the Prophets and Apoſtles Power by their Volition to heal the Sick by a Word, and make happy Changes in ſeveral ſick Bodies which they did not touch? And whether, if my Soul had ſuch a Power immediately to move a diſtant Grain of Wheat, it muſt be extended through all the intermediate Space between my Body and that Grain, that ſo it might be nearer to it, in order to act upon it? And if there be no Neceſſity of this Extenſion, or ſtretching ſo far as the Grain of Wheat, in order to move it, why muſt a Soul or Spirit be ſuppoſed to have any Proximity to a Body, in order to move it by a Volition?

May we not conclude from all theſe Conſiderations, that the Power of a Spirit to move a Body, or to move ſeveral Bodies diſtinct from each other, is not innate in the Spirit itſelf, but rather ſeems to depend upon the ſupreme Will of God, and his particular Appointment or Commiſſion? And when this is done according to the common and uniform Courſe of Things which God has eſtabliſhed in

in the World, it is called *Nature*, or the *Law of Nature*; but when it is not according to this natural Courſe of Things, it is called *Miracle*: But that all Spirits moving Matter have this Power only by ſpecial Divine Appointments.

The great Law of *Attraction* or *Gravitation* in the corporeal World, has a conſiderable Reſemblance to this Doctrine of a *Spirit moving Bodies*. If one Planet act upon another at a great Diſtance by way of Attraction, according to the univerſal and original Laws of Attraction, 'tis ſaid to do it, *naturally*; but if in any Inſtance this Attraction differ from the Original Law, 'tis called *Miracle*: but both the one and the other are originally the Effects of an Almighty Divine Volition or Appointment.

Note, All the Queries which I have put, with regard to a Spirit's *moving* one or more Bodies, nearer or more diſtant, may be repeated in the ſame manner with Regard to a Spirit's *Conſciouſneſs* or *Senſation* of the Motions of one or more Bodies. I have intimated this already, but I will ſpeak of it now a little more particularly. As I cannot conceive how *Proximity* between Spirit and Body ſhould enable it to excite any Motion in that Body, ſo neither can *Proximity* give that Mind any Conſciouſneſs of that Body's Motions, and therefore I muſt impute this alſo to Divine Appointment, and to that only.

For

For let us conſider a little. Suppoſe the Soul to reſide in the Brain, or let it be diffuſed through the whole Body, ('tis the ſame thing in my Argument) 'tis ſtill ſuppoſed to penetrate the Part where it reſides, or to be co-extended with it: But this Co-extenſion with the Body, or with any Part of it, does by no means give it a Conſciouſneſs of the Parts which it penetrates; for if it did, then every human Spirit would know preciſely where it dwells, whether it reſided in the whole Body, or in any particular Part of it. If it were diffuſed through the whole Body, every human Soul would be an exquiſite Anatomiſt, and be conſcious of all its Bowels, Muſcles, Nerves, Veins, Arteries, *&c.* and know what Fibres were diſcompoſed when any Animal Diſorder or Pain aroſe in the Body; but this is contrary to all Experience.

Again, If the Soul reſided locally in any particular Part of the Body, or of the Brain, and received its Conſciouſneſſes from its Co-extenſion with that Part, the Conteſts about the *Common Senſory*, whether it be the *pineal Gland*, or the *extreme Origin of each Nerve*, or the whole *Brain*, would quickly be decided by every human Spirit, for it would be conſcious of the Place of its own Reſidence. But this alſo is contrary to all Experience; for the beſt Philoſophers are ignorant to this Day, what is that preciſe Part of the Brain whence the Soul immediately derives its notice of

of ſenſible Things, *i. e.* where is the *Common Senſory.*

Yet further, 'tis evident, that this Spirit which is ſuppoſed to reſide in the Brain, becauſe we feel ourſelves think as it were in the Brain, is much more conſcious of other Motions in diſtant Parts of the Body, than it is of the Particles in the Brain, which 'tis ſuppoſed to penetrate; it is conſcious not only of Shapes, Motions and Magnitudes of outward Bodies, by their Impreſſions on the Organs of Senſe, but it is alſo conſcious of ſenſible Qualities, Colours, Sounds, Cold, Heat, *&c.* though they come from far diſtant Bodies: 'Tis conſcious of Eaſe, Appetite, Pain, *&c.* in Parts diſtant from the Brain; it is in ſhort conſcious of every Thing that God has thought fit to make it conſcious of for the Preſervation and Uſe of Animal Nature, and for all the Purpoſes of this preſent Life; and yet 'tis not conſcious of the Shape, or Motion, or Situation of the ſmall Fibres, or pulpous or nervous Parts of the Brain, where 'tis ſuppoſed to reſide, and which 'tis ſuppoſed to penetrate; all which is a plain Proof that 'tis not any Proximity to the Body in Place that gives it theſe Senſations and this Conſciouſneſs, but the ſovereign Will and Appointment of the God of Nature.

Perhaps you will aſk me then, How far can this Power extend, which God gives a Spirit to be conſcious of Matter, or to move it? Can a Soul be conſcious of Bodies a Mile long?

Can

Can a ſingle Spirit remove a great Mountain by Volition? Can a created Mind be conſcious of every Atom in a Mountain? Where does its conſcious or its motive Power end? If theſe Powers ariſe only from Divine Appointment, why may it not be conſcious of every Part of this Globe of Earth, if God appoint it? Nay, the Enquiry (ſay you) might be enlarged; why may not the ſame Spirit move the Moon, or be conſcious of the other diſtant Planets, all at the ſame Time, if God pleaſe?

To this I *anſwer*, That we are utterly ignorant of the Limits of the Power of Spirits; but we know they are not infinite: Tho' Spirits have no natural Conſciouſneſs or Motivity of Matter, but what God gives them by ſpecial Commiſſion, yet 'tis poſſible that ſome may be capable of receiving more numerous, more extenſive, more complicated Ideas than others, and conſequently may have a larger Commiſſion. Some may have a Capacity of taking in, and of attending to no more than one Idea at once, and ſome may attend to ten or ten thouſand. 'Tis ſaid, that *Julius Cæſar* could write himſelf, and dictate to ſeveral Clerks at the ſame Time. 'Tis poſſible, for ought I know, that a Spirit may be united to the Sun, and be conſcious of every Ray, and at once take Cognizance of all the Effects and Influences of thoſe Myriads of Rays on every Planetary World. And 'tis not unlikely that the Motive Power may keep Pace with ſuch an extenſive Conſciouſneſs. Surely there may

may be a vaſt Variety in the native Capacities of intellectual Beings, and yet none of them have Communications with the material World, without the Appointment of their Maker. 'Tis probable, that according to their native Powers of receiving a Multitude of ſimultaneous Ideas, God may employ ſome in a vaſtly larger Sphere than others.

And yet alſo it muſt be obſerved, that 'tis poſſible the great God may employ ſome Spirits in a wider Sphere of Conſciouſneſs or Motivity, without being themſelves and in their own Nature more capacious of Ideas, or more powerful: Much leſs muſt we ſuppoſe them to be longer or broader than their Fellows, or to have any manner of Shape or Dimenſions at all. The Soul of a Dwarf may be as potent in itſelf as the Soul of a Giant, but God has given one a Commiſſion to move a larger Engine of Fleſh than the other. Neither the intellectual Capacities, nor the Dimenſions of Souls ſhould be meaſured by the Bulk or Height of the Animal.

SECT. IV.

Other Objections anſwered againſt the Locality of Spirits.

ARE not Spirits in ſome Place? Do they not fill up ſome Space? Muſt they not have ſome Relation of Situation to Bodies, as being near or diſtant? 'Twill be exceeding

ſtrange to ſay, *My Spirit is not properly or locally in my Body*; ſurely you will tell me, it muſt exiſt ſomewhere or nowhere: If it exiſt ſomewhere, it muſt either fill all Space, and exiſt everywhere, or it muſt fill a Part of Space, and that is ſtill ſomewhere: It muſt either be circumſcribed in ſome Part of my Body, or be diffuſed through the Whole of it; for *if it exiſt nowhere, it has no Exiſtence.*

Let us conſider this Argument in its ſeveral Parts. *Firſt* 'tis granted, that Spirits do not exiſt or reſide *everywhere*, they are not infinite: And I will grant alſo, that they do not properly exiſt or reſide *anywhere*, for they exiſt without any other Relation to Place, than what ariſes from their Powers or Operations on Matter: They have no ſuch Relation to *Place* as Bodies have, and therefore it may be philoſophically ſaid, *they exiſt or reſide nowhere:* that is, tho' God has given human Spirits Commiſſion to act immediately on their own particular Bodies, and on no other, yet they have no meaſurable Relation to Place, they have no proper Nearneſs or Diſtances to or from thoſe Bodies, altho' they act upon them by Divine Appointment, and receive Influences from them; but properly they belong to another Rank of Natures, another World of Beings, which require only Activity and Conſciouſneſs, and do not require any proper Situation to be given them, any Space to poſſeſs, or *Place* to exiſt or reſide in, tho' the Objects

on

on which they act, or of which they are conſcious, have proper Situation or Place.

And if there be any ſort of ſeparate Spirits which have no *Vehicles* (as they are called) and which are not united to Matter, or which have no Commiſſion from God to act upon any material Being, or to be conſcious of it, they are moſt properly *nowhere*, in ſtrict Philoſophy; that is, they ſeem to ſtand more free from all Locality or Relation to Place, ſince their Powers and Operations having no material Objects, give them no Pretences to Situation or Reſidence in or near any Body whatſoever; and as there is no part of Matter which they are related to by mutual Action or Paſſion, ſo neither by *Juxta-poſition* or Contact.

But you will ſay, If my Soul be ſeparated from my Body at *London*, it may know after its ſeparation that it is ſomewhere near *London*, that it is not in *China*, that it is not in the *Moon*, not in *Jupiter*, or one of his Satellites; it muſt be conſcious of its Being and Thinking in ſome Place of this Univerſe rather than in another.

I *anſwer*, Perhaps not; for when once the Laws of Union are broken, the Soul ceaſes to be conſcious of the Preſence of Body, and of all Properties of Body, of Place, Motion, Diſtance from, or Proximity to any Body whatſoever: for it cannot be conſcious of Bodies, nor Proximity to them, but by the Agency of thoſe Bodies upon it, and exciting Senſations in it; but no Bodies can act upon a ſeparate

Spirit, without a new divine Appointment, nor excite in it any Senſation.

Yet you will *reply*, May not the Soul be among Bodies and near to them, tho' it be not conſcious of it?

And I *reply* alſo, By no means; for whatſoever hath Proximity to any Body, may have a greater and greater Proximity, till at laſt it touch, or till its Surface be united to the Surface of that Body: but this we have proved to be utterly contrary to the Nature of a Spirit, *(viz.)* to have any Shape or Surface.

I come now to anſwer the *ſecond* Part of the Dilemma, and that is, that *if a Spirit exiſts nowhere, it has no Exiſtence.* This is a mighty Cannon play'd upon me from among the ancient Artillery of Axioms, *(viz.) Quod nullibi eſt non eſt*, That which is nowhere, has no Being. But ſince this Axiom is not evident enough to be granted, I thing it can never be proved; and ſince 'tis borrowed meerly from the World of Senſe and Matter, it does not affect the Doctrine of Minds or Spirits, which are thinking Powers, and whoſe Eſſence and Life conſiſts in perpetual conſcious Activity. This corporeal Maxim can do no more Execution here, than a Cannon Ball would do on an Army of Angels: For tho' a Body cannot be without Being *ſomewhere*, yet a Spirit, which is a conſcious active Power, may have a real Exiſtence, and yet have *no proper Place*; that is, may reſide or be ſituated *nowhere* in the Senſe I have explain'd it, *i. e.* have no Proxi-

mity

mity of Situation of Bodies, or fill up no ſuppoſed Dimenſions of Space.

'Tis certain, that the Forms of Speech in all Languages are drawn from our Converſes with corporeal and ſenſible Things round about us, which require *Locality*, or a *proper Place* to exiſt in: and our Words and Phraſes are not made for the World of Spirits, but the World of Bodies: Nor can they ſo happily expreſs the Ideas that belong to Spirits, as if we could ſpeak of intellectual Beings in their own proper Language. And ſince our Spirits in this preſent State are united to Animal Bodies, or act upon them, we borrow twenty Forms of Expreſſion concerning our Spirits, which originally and properly belong only to Bodies; and being train'd up from our Infancy to this ſort of Language, we are ready to imagine our Souls to be ſome thin airy ſort of Bodies, as the Soul is pourtray'd, as I remember in *Comenius*'s *Pictus Orbis*, which I learnt at School. We ſuppoſe Spirits to have a ſubtil ſort of Extenſion and Figure, and to require a Place to exiſt in as much as Bodies. Nor is it poſſible, nor is it needful in our way of common Diſcourſe, to alter our Language and change the Form of our Expreſſions concerning Spirits which are borrowed from corporeal Things, provided when we come to philoſophize more accurrately about them, we do but explain them in a Conſiſtenecy with the Nature of Spirits. Let us ſee then whether we cannot in a philoſophical manner declare what is the *Ubi*

or *Whereneſs* of a Spirit, and account for the common Expreſſions of a Spirit's *Exiſtence in ſuch a Place*, and its *Motion from Place to Place*.

SECT. V.

The Ubi *or Whereneſs of a Spirit.*

SPirits, in common and familiar Language, are ſaid *to be*, and to have their Exiſtence or Reſidence in or near thoſe Parts of Matter on which they exert their immediate Activity, or whereſoever they have an immediate Conſciouſneſs. This is properly their *Ubi* or *Whereneſs*. So my Soul is ſaid to *be in my Body*, or *united to this Body* of mine, becauſe it is conſcious of the Motions or Impreſſions made on my Body, and has many Senſations and Imaginations by the Means or Occaſions of this Fleſh and Blood, and becauſe it acts upon or moves this Animal Engine; whereas it is not conſcious of the Motions or Impreſſions of other Bodies, nor does it act upon them or move them as it does my own.

And this is the proper Notion of the *Spirit's Union to a Body*, (viz.) that tho' my Soul has in its own Nature, and meerly of itſelf, no Conſciouſneſs of, or Power of Agency upon, any Particle of Matter; yet the great God, the Father of Spirits, has appointed my Soul to be thus conſcious of ſome Motions of my Body, and to have ſome Power of Agency upon it: He has given my Soul this individual animal

animal Machine, this appointed Sphere or Station of my Body, from which to receive Senſations, and in which to excite Motions.

Now for this Reaſon my Soul is ſaid *to move* where my Body moves, and *to dwell* where my Body dwells, becauſe its Power of immediate Conſciouſneſs and Activity are confined to this animal Body of mine. The Body being the groſs and viſible Engine whereby all our human Affairs and Tranſactions are carried on, and the Soul, the active Agent, being inviſible, we ſpeak of every thing that the Man does in Language ſuited to his Body rather than to his Soul; Men generally ſuppoſing the Soul to be a kind of *Appendix* or ſuperadded Principle to the Body; whereas in philoſophical Truth, the Body is rather the *Appendix* or Inſtrument of the Soul. But 'tis proper for us ſtill to conform to the common Language of the World in ſpeaking of theſe Subjects, juſt as the moſt exquiſite Aſtronomers ſpeak of the *Sun-riſing* and *Sun-ſetting*, and the *Motion of the Sun and the fixed Stars*, tho' they know that the Sun abides in the Centre of the planetary World, and the fixed Stars have no Motion, and that the Earth and the other Planets are the only Bodies that perform theſe diurnal, menſtrual and annual Motions.

For this Reaſon the Soul of Man may be ſaid to be in *his Brain*, becauſe 'tis more immediately conſcious of ſome preſent ſenſible Object, when the Motions or Impreſſions made on the outward Parts of the Body or

Organs of Senſe are conveyed to the Brain by the Nerves: And if this Conveyance be interrupted between the extreme Parts and the Brain, the Soul has no Senſation, no Conſciouſneſs of what is done to the extreme Parts. We ſay alſo *the Soul reſides in the Brain*, becauſe it more immediately exerts its Motive Power upon ſome Parts of the Brain, or the Origin of the Nerves there, whenſoever the Soul deſigns to move the Body; and alſo becauſe when we ſet ourſelves to think or to remember any Idea, we do as it were feel the Soul employing the Brain.

Now in the ſame Senſe in which we ſay, *My Soul* or *my Spirit is in my Body*, we may ſay alſo concerning the great God, the infinite Spirit, that *he is preſent every where*, i. e. he is immediately conſcious of every Property, Figure and Motion of every Part of Matter in the Univerſe, and of every Thought of every created Mind. His Will hath an actual Agency on every created Being, at leaſt ſo far as to maintain or ſupport them in their Nature and Exiſtence; and he has an immediate and unlimited Power of acting upon every Part of Matter, and upon every created Spirit; and therefore God is ſaid to be *Omnipreſent*, or *preſent with all Things*, even as my Soul, which hath a limited Conſciouſneſs of ſeveral of the Motions and Impreſſions cauſed in this my Animal Body, and a limited Power of Agency upon it, is ſaid to be *preſent with my Body*.

And

And if we extend our Thoughts beyond all the real Creation into the ſuppoſed Emptineſs or imaginary Space, we may as well aſſent, that the Ubiety of God reaches to all the ſuppoſed Infinity of empty Space; that is, that his Knowledge extends to all Things that are, or ſhall be, or can be, and that he has a Power of immediate Agency to create what he pleaſes, through all the infinite Void or empty Nothing, or whereſoever there is nothing already created.

This immediate and univerſal Conſciouſneſs and Agency of the ſupreme Spirit on all Things, is the *Omnipreſence* of God, and this perhaps is the only true Notion of his *Immenſity*; and yet this infinite Conſciouſneſs and Activity of God, which are his very Self, have no meaſurable or unmeaſurable Relation either to Body or to Space, as the Parts of Extenſion or Quantity have to each other; and therefore we ſay, *he is in no Place* in ſtrict and philoſophical Language, tho' in common Speech, and in the Language of Scripture, which is ſuited to the Bulk of Mankind, God is ſaid *to fill all Things*, and to exiſt *everywhere*, in Heaven, Earth and Hell, becauſe of his immediate Conſciouſneſs of all Beings what and whereſoever they are, and his Power of immediate Agency upon them. This is infinite Knowledge and infinite Power. And indeed this idea of infinite Power and Knowledge has no manner of Connection with Extenſion or Space, any more than the Idea of infinite Space or Emptineſs has with Knowledge

ledge and Power: They have nothing at all to do with each other as Attributes of the ſame Subſtance.

But now if we could ſuppoſe the very Subſtance of the bleſſed God to be really long, broad and deep, and to be actually extended thro' the whole Univerſe of Matter, and thro' all imaginary Space, what Advantage would be gained by it toward the aggrandizing of his own Majeſty, or our Ideas of him? What could he do more by this ſuppoſed infinite Extenſion of his Subſtance, than to be immediately conſcious of all Things, and to have an immediate Power and Influence upon all, to know all Poſſibles, and give them Exiſtence when he pleaſe? And this is as fully and honourable attributed to him in my way of Thinking, without any of thoſe Inconveniencies, and thoſe harſh or abſurd Ideas and Speeches, which ariſe from attributing Extenſion with all its Conſequences to the great and bleſſed God.

CONCLUSION.

But after all our beſt Philoſophemes on the Nature of Spirits, we muſt confeſs our great Ignorance of that more glorious and noble Part of the Creation. We are immerſed in the Affairs of Senſe and Matter, and impoſed upon perpetually by the Prejudices ariſing thence: And when we endeavour to quit ourſelves of them, and to turn our Backs entirely upon ſenſible Ideas, we are in danger of wander-

wandering into Darkneſs and ſometimes perhaps of going beyond our clear and diſtinct Perceptions. The beſt Thing we can do is, to guard againſt thoſe Ideas of Spirits which have any groſs Abſurdities attending them; and particularly to ſtand afar off from thoſe Opinions which would bear in any indecent and diſhonourable Ideas, upon God the ſupreme Spirit. I would aſſert nothing with Confidence on ſo abſtruſe a Subject; I would retract all the Expreſſions that ſavour of too much Aſſurance: perhaps I may be miſtaken in this whole Set of Sentiments: I am therefore ready to renounce them all, as ſoon as I can find another Scheme more juſt and more natural. And if I am forced to retain theſe Opinions, 'tis only for want of better, till I retire from this World. I hope then to *ſee as I am ſeen, and know as I am known*; to have clearer and juſter Ideas of *what I am* and *what God is*; and to join with the holy Millions of Spirits in the heavenly World, to pay Honours to my *Creator-Spirit*, more agreeable to the Dignity of my own Nature, and the incomprehenſible Grandeurs of his Majeſty. *Amen.*

ESSAY

ESSAY VII.

The Departing Soul.

SOME Perſons have been very ſolicitous to know how the Soul goes out of the Body when a good Man dies; how it paſſes through the Air and etherial Regions; and, leaving the Stars behind, how it ſoars up to the Third Heaven. They are much at a Loſs to tell how long 'tis a going this wondrous Journey, and in what Region of thoſe upper Worlds its final Manſion is; eſpecially ſince the new Philoſophy has found thoſe Regions to be ſo very vaſt, that a Cannon Bullet would ſpend many Ages in travelling to the neareſt Star, or from one Star to another. They are yet further puzzled to conceive whether a Soul departing from any Place, *v. c.* from *London* at Noon, would find out its Friend who died there the foregoing Midnight, ſince a direct Aſcent would encreaſe their Diſtance and Separation, far as the *Zenith* is from the *Nadir*; and they are as much puzzled to determine, whether the immenſe outmoſt Space be their Dwelling, or ſome one Part of it only.

I con-

I confeſs while we conſider human Souls united to Bodies, we are wont to ſpeak of their *Abſence* and *Preſence*, their Places of *Reſidence* and their *Removes*, according to the Station, Place and Motion of thoſe Bodies to which they are united. This is the common Language of all Mankind; nor is there any ſufficient Reaſon to alter it. 'Tis evident, and without all Controverſy, that Bodies muſt neceſſarily have Relation to Place: And when Angels aſſume corporeal Vehicles, the Caſe is the ſame with them as with human Souls; they may therefore be ſaid to move and fly from Place to Place. *Gabriel being cauſed to fly ſwiftly*, Dan. ix. 21. *touched* Daniel *in the Evening*. Angels have their Places of Reſidence or Removal in this Reſpect.

There is alſo certainly a *local Heaven*, where the Body of our Bleſſed *Saviour* is, and *Enoch* and *Elijah*, who went from this World and carried their Bodies with them; and there are other Saints that were the Companions of their Lord's Reſurrection, who doubtleſs aſcended with him into Glory, *Matt.* xxvii. 52.

Whether this Heaven be one certain determined Palace among the Planets or near the Stars; or whether it be this ſolar Syſtem wherein we dwell, thro' all Parts of which they paſs ſwift as Sun-beams, and make this whole planetary World their Palace; theſe Things cannot yet be fully determined by us. I confeſs I much queſtion whether the Range of human happy Beings extends thro' all the fixed Stars. That

That Expreſſion of *aſcending far above all Heavens*, which is applied to *Chriſt*, *Epheſ.* iv. 10. is eaſily reconcilable to this Scheme, tho' his Body roſe no higher than to ſome Planet in our ſolar World; ſince his *deſcending into the lower Parts of the Earth*, in the ſame Text, ſignifies no more than his going into a Sepulchre, perhaps a Foot or two beneath the Ground. So that the Expoſition of thoſe Texts is not to be meaſured by Yards or Miles; but as the one expreſſes *great Abaſement*, ſo the other *great Exaltation*, in ſuch Language as is ſuited to the Apprehenſions of the vulgar Part of Mankind, which all learned Men acknowledge to be the common Language of Scripture.

Now concerning *departed Souls*, if we allow them to be immediately furniſhed with new Vehicles, ſo as never to have any ſingle and ſeparate Exiſtence in their own pure ſpiritual Nature, then we may talk of their *riſing* and *moving*, and *reſiding*, in all the *local* Language that belongs to Bodies; we may then trace their Aſcent thro' the aerial Regions and follow their Flight thro' the planetary Worlds, if we know where to ſtop and ſettle them in a proper Place.

Nor am I ſo averſe to this Opinion as to renounce or diſclaim it utterly, 'Tis poſſible it may be ſo appointed by the bleſſed God, the Lord and Ruler of all the Worlds of Minds and Bodies. I know not of any Perſon living who is ſo ſagacious as to have pry-

ed

ed into all the Secrets of the inviſible World, and to be able to tell us certainly how Spirits live and act, and converſe there: Nor have we had any of the departed Souls among Men who have come back to give us an Account of theſe Affairs. There's a myſterious Darkneſs ſpread over the Face of the unſeen Regions to hide them from mortal View: And 'tis wiſely ordained by our Creator that we ſhould live in this World by Faith, and not by Sight. We are ſure we muſt ſhortly put off theſe Tabernacles; and tho' the Spirits of good Men ſhall be immediately inveſted with a holy and happy Immortality, yet whether they ſhall be clothed or furniſhed with material Vehicles of any kind is not ſo evident, and conſequently what they ſhall have to do with *Place* and *Motion* is not ſo eaſy to determine.

But when we ſpeak of the *Places* and *Motions* of departed Souls, and yet conceive them as perfectly ſeparate from all Matter, we talk perhaps but in a meer vulgar, figurative or improper Way, and in ſuch Language as our Infancy and Prejudice borrow from ſenſible Objects round us; and not agreeable to the philoſophical Nature and Reaſon of Things; in which reſpect pure Spirits do not ſeem to be capable of Confinement to a Place, or any proper local Motion to or from it, becauſe they have no Figure, Shape nor Dimenſions.

All the foregoing Problems and hard Queſtions about the holy Soul's paſſing thro' the airy Regions, and getting up above the Planets and

and Stars, &c. are therefore eaſily anſwer'd, and all thoſe Difficulties remov'd, if we conſider the Soul as a pure intellectual Being, a ſubſtantial thinking Power, without any Dimenſions of Length or Breadth, and conſequently without any proper Relation to Place. Then it will follow, that human Spirits which were united to Bodies, when they enter into a State of Separation, need not have any thing to do with a real proper Motion or Flight, or Change of Places. An embodied Soul (that is, a Soul acting in Concert with an Animal Body) when it becomes a ſeparate Soul (that is, a Soul acting in its own pure intellectual Capacity without a Body) does not need properly to alter its Place, but only its manner of Thinking and Acting, in order to be in Heaven and Hell, *i. e.* happy in the Preſence of God, or miſerable in the midſt of Devils, acting and thinking without Bodies.

In order to give us ſome faint Idea of this Matter, and to help our Conceptions while they are ſo incumbered with corporeal and local Images, let us conceive the whole intelligent Creation, or all created Spirits, as one Set of Beings, acting in different Manners (and if you pleaſe) in one open and infinite Space; for we cannot utterly throw off all theſe kind of Ideas in the preſent State.

Some Spirits are ſaid to be united to a Body, that is, are influenc'd in their Actions by Animal Bodies, and 'tis their Buſineſs to move and manage thoſe Engines; but by the perpetual

perpetual Agency of Animal Nature upon them, the Reaction upon it, and their Converſe with the material World by the Means of that Animal, they are reſtrained from more immediate Converſe with ſeparate Spirits, or even with God the infinite Spirit.

Others are free or diſengaged from Bodies; and theſe have a more immediate Perception of God the infinite Spirit, and converſe with each other perhaps under no Confinement, or under ſuch leſſer Limitations as their Creator's Will and their own finite Natures make neceſſary. They become conſcious of one another's Thoughts and Volitions by ſome unknown Way that God has appointed; for as an embodied Spirit is conſcious of the Motions of that Animal to which 'tis united by the Appointment of God, as it becomes conſcious of the Motions of other Bodies round about it by the Organs of that particular Animal, and as it is alſo conſcious of the Thoughts of other embodied Spirits by the Motions or Voices of their ſeveral Engines or animal Bodies, ſo doubtleſs there is a Way which God the Creator-Spirit has ordained whereby created Spirits, which are ſocial Beings, ſhall maintain Society and friendly Communion with other created Spirits when they are in their native State, ſeparate from material Engines.

Now Death is but the Ceſſation of Animal Life, in that Body or Engine which is united to any particular Spirit: That Body then be-

comes a moveleſs Maſs, and not an Animal; it is no more capable of obeying the Volitions or Commands of the Soul, nor of communicating any external Motions by the Nerves to the Brain, to give the Soul notice of any ſenſible Object. Thence it follows by Divine Appointment, that that Spirit is no more conſcious of what paſſes in that Body, and no more employ'd in managing it, or acting upon it, or converſing with the material Creation by the Organs of that Engine.

Being therefore unemploy'd and unimpreſt by the *corporeal* World, its Thoughts perhaps are more purely *intellectual*, or at leaſt it has no new Senſations, but its Ideas are raiſed in another manner. It reflects upon its own Temper and Actions in this Life; 'tis conſcious of its Virtues or its Vices; it has an endleſs Spring of Peace and Joy within, flowing from the Senſe of its wiſe and holy Behaviour in the State of Trial, or it is tormented with the bitter Anguiſh of a Self-condemning Conſcience in the Reflection on its paſt Crimes. This is one great Part of Heaven and Hell.

And then with Regard to God and its Fellow-Creatures, if we ſpeak of them in this our incarnate State, we muſt be forced to uſe Language borrowed from corporeal Things, and ſay, This departed Soul appears at once in the pure intellectual or ſeparate World, like a Native there; it ſtands among innu-

innumerable Millions of Spirits, itſelf a kindred Spirit, gains ſwift Acquaintance with them, grows conſcious of their Ideas and Actions in their own Way and Method, which God has not yet revealed to us in this Life: And above all, it has an immediate Perception of God the infinite Spirit, a Conſciouſneſs of his Power and Preſence, and an intimate and delightful Taſte of his Love, or a dreadful Senſe of his Anger; and thus the Soul feels immediately, and poſſeſſes a ſecond Part of its Heaven or its Hell; and all this without any local Motion, or any Relation to a Place, or Change of Diſtance.

I might illuſtrate this by two Similes, and eſpecially apply them to the Caſe of holy Souls departing.

1. Suppoſe a Torch incloſed in a Cell of Earth, in the midſt of ten thouſand thouſand Torches that ſhine at large in a Spacious Amphitheater. While 'tis incloſed, its Beams ſtrike only on the Walls of its own Cell, and it has no Communion with thoſe without: But let this Cell fall down at once, and the Torch that Moment has full Communion with all thoſe ten thouſands; it ſhines as freely as they do, and receives and gives Aſſiſtance to all of them, and joins to add Glory to that illuſtrious Place.

2. Or ſuppoſe a Man born and brought up in a dark Priſon, in the midſt of a fair and populous City; he lives there in a cloſe Confinement, perhaps he enjoys only the twink-

ling Light of a Lamp, with thick Air, and much Ignorance; tho' he has ſome diſtant Hints and Reports of the ſurrounding City and its Affairs, yet he ſees and knows nothing immediately, but what is done in his own Priſon, till in ſome happy Minute the Walls fall down; then he finds himſelf at once in a large and populous Town, encompaſſed with a thouſand Bleſſings; with Surprize he beholds the King in all his Glory, and holds Converſe with the ſprightly Inhabitants; he can ſpeak their Language, and finds his Nature ſuited to ſuch Communion; he breathes free Air, ſtands in the open Light, he ſhakes himſelf, and exults in his own Liberty. Such is a Soul exiſting in a Moment in the ſeparate World of holy and happy Souls, and before a preſent God, when the Priſon Walls of Fleſh fall to the Ground.

Perhaps it will be *objected* here, that holy Souls, when they are *abſent from the Body*, are encouraged to expect they ſhall *be preſent with the Lord* Jeſus, and then it ſeems neceſſary they ſhould be in the Place where his Body is. They hope to *be with Chriſt*, and behold him in the Glories of his exalted human Nature, when they *depart* from the Fleſh, 2 *Cor.* v. 8. *Phil.* i. 23. Now in all this philoſophical Account of the ſeparate State of the Souls of good Men, there is no Proviſion made for this Part of our promiſed Bleſſedneſs.

To this I *anſwer*, That if the Souls of good Men at their Death be admitted to a more intimate

intimate Converſe with the Deity itſelf, and with the human Soul of *Chriſt Jeſus*, there is no Neceſſity of any Communication with his glorified Body, till their Bodies alſo are raiſed at the laſt Day. Now the human Soul of *Chriſt*, eſpecially in its exalted State, has an extenſive Power to converſe with pure Spirits, whether Angels or human Souls, to impreſs his ſacred Influences of Authority or Love upon them, by Command or Conſolation, and enable them to exerciſe and maintain mutual Converſe with himſelf. Doubtleſs our bleſſed Lord has all the Freedoms, Powers and Prerogatives of a pure ſeparate Spirit in his State of bodily Reſurrection, Exaltation and Glory; and he can make the Spirits of his faithful Followers as happy in his own Preſence, as is proper for their State of Separation from the Body; and he can alſo make the Souls of impenitent Sinners, as well as evil Angels, ſenſible of his Reſentments againſt their Crimes. His raiſed and exalted Body is no Hindrance to his Influences on unbodied Spirits. If in his incarnate State and Humiliation, when his Body was meer Fleſh and Blood, he had Converſe with good Angels, and Power over Devils, we may well ſuppoſe, that in his exalted State of Union to a glorified Body, he can converſe as he pleaſes with the World of Spirits, and enable them to hold Converſe with himſelf.

After all, let it be noted, that I have only repreſented in this Place, how far it is poſ-

ſible for the Heaven or the Hell of departed Spirits to commence in this State of Separation from the Fleſh, without a new Union to any corporeal Vehicle. Yet I aſſert nothing with Certainty; I am conſcious of my Ignorance. Perhaps 'tis probable enough that there may be ſome Vehicles of groſſer or more refined Matter aſſign'd to every human Spirit, when the Body of Fleſh expires, and is no longer capable of maintaining its reciprocal Communion with the Spirit. What are the Circumſtances, what are the Laws, what is the Situation, and what is the Language of the World of Spirits, muſt and will be a Matter of Darkneſs and Myſtery to us, while we dwell in Fleſh and Blood: we muſt each of us wait our appointed Hour, and then ſhall our Curioſity be better ſatisfied, either in a delightful or in a dreadful Manner, according to our Behaviour in the preſent Life.

ESSAY

ESSAY VIII.

The Reſurrection of the ſame Body.

THERE has been a warm Diſpute among Men of Learning, and particularly between Mr. *Locke* and Biſhop *Stillingfleet*, whether the ſame individual Body which is buried ſhall be raiſed at the Reſurrection of the Dead? Or, whether it may not be another new-made Body, compoſed of any other Atoms, and united to the ſame Soul. Thoſe, who with Biſhop *Stillingfleet* affirm the Reſurrection of the *ſame Body*, may give ſuch Reaſons as theſe for it.

1. 'Tis fit and proper, that the ſame Body which has been a Companion and Inſtrument of the Soul in Duties of Holineſs ſhould ariſe and ſhare with the Soul in the Reward of Heaven; and that the ſame Body, which has been a Temptation or Inſtrument of the Soul in Sin, ſhould alſo riſe to ſhare the Torment.

I muſt confeſs, I don't think this Argument has very great Weight in it; becauſe the Body alone is meer inſenſible Matter, and can neither ſhare in Pleaſure or Pain. 'Tis

the Soul only that has Senſe of Pain and Pleaſure, and whatſoever Body 'tis vitally united to, is ſtill its own Body, and may be the Medium of Pleaſure or Pain to it.

2. Since Body and Soul united conſtitute the Man, if it be not the ſame Body that died which is raiſed, then one eſſential Part of Man is loſt. If it be another Body, 'tis another Man that is raiſed from the Earth, and not the ſame Man that died.

Beſides, the Soul never dies; and if the ſame Animal Body that died be not raiſed to Life, there is nothing at all raiſed to Life: There may be another inanimate Body which has Life given to it indeed, but nothing is revived. Perhaps this ſort of Argumentation may have ſome Weight in it.

3. Chriſt himſelf ſaith, *John* v. 28. *They that are in the Graves ſhall come forth:* This muſt refer to the ſame Body that died; for 'tis not the Soul, nor is it any other Body that was properly put into the Grave, but the Animal Body of the Man which is now inanimate and dead.

4. It ſeems to be the Deſign of the Apoſtle, to ſhew that 'tis the ſame Body which died in ſome Reſpects, tho' not in all Reſpects, which ſhall be raiſed again to Life, 1 *Cor.* xv. 42. *So is the Reſurrection of the Dead. It*, i. e. the Body, *is ſown in Corruption, it is raiſed in Incorruption*, &c. *It*, i. e. the Body, *is ſown a natural Body, it is raiſed a ſpiritual Body.* It is the ſame human Body ſtill, but with

with different Qualities. So, *Ver.* 52, 53. *The Dead ſhall be raiſed incorruptible, and we ſhall be changed. This Corruptible ſhall put on Incorruption, this Mortal ſhall put on Immortality*; which ſeems to be ſpoken both with regard to thoſe who ſhall be raiſed from the dead, as well as thoſe who ſhall be changed at the coming of *Chriſt*. 'Tis *this Mortal and this Corruptible*, that is, this very Animal Body, which was mortal and corruptible, muſt be raiſed immmortal.

To this I might add, that the Apoſtle, *Rom.* viii. 11. ſpeaks of theſe very *mortal Bodies which we now have*, and affirms they ſhall be *quickned*, &c. and *Phil.* iii. *ult. this Body of our Vileneſs* or Humiliation is to be *changed, and made like to the glorious Body of Chriſt*. Surely ſuch Expreſſions denote the ſame Body.

But the Subſtance and Strength of all the Arguments derived from Scripture to prove the Reſurrection of the ſame Body, may be found well put together in Dr. *Whitby*'s Preface to the firſt Epiſtle to the *Corinthians*.

Thoſe who with Mr. *Locke* make the Reſurrection of the ſame individual Body needleſs, may alledge ſuch Reaſons as theſe.

1. It attains no valuable Purpoſe to confine the Reſurrection to the ſame Atoms of Matter; for if the ſame Soul be united to any Maſs of the ſame ſort of Subſtance, *i. e.* to any Matter, there is a ſufficient Proviſion for every thing that regards the Happineſs or Miſery

ſery of the riſing Dead: Since the Body itſelf, or meer Matter, has no Senſation; and the Soul will have the ſame ſort of Senſations, (whether pleaſant to reward it, or painful to puniſh it) whatſoever other Particles of Matter it may be united to, as if it were united to the ſame Particles it had in this World, and in which it obeyed or ſinned.

Beſides, it is worthy of our Obſervation what Mr. *Locke* ſays on this Subject, "If it "ſhould be demanded what greater Con- "gruity the Soul hath to any Particles of "Matter which were once vitally united to "it, but are now ſo no longer, than it hath "no Particles of Matter to which it was never "united, this would be hard to determine."

2. The Apoſtle ſhews it ſhall be different Matter from that which was laid in the Grave, by the very Manner of his arguing: For when he uſes the Simile of a *Grain of Wheat dying in the Ground*, he ſays, *Ver.* 37, 38. *Thou ſoweſt not that Body that ſhall be, but thou ſoweſt a bare Grain*; and God giveth *it* a *Body* (i. e. another Body) *as pleaſeth him.* And then he goes on to ſhew what different ſorts of Bodies there are, and how different the Bodies in the Reſurrection ſhall be from what were buried.

3. 'Tis hardly poſſible that all the very ſame Bodies ſhould riſe; that is, all the ſame Atoms or Particles that were buried: For when Bodies turn to Duſt, this Duſt or Earth grows up in Vegetation, and becomes the

the Body of Graſs or Plants; Sheep and Oxen eat theſe Plants, and other Men eat the Sheep and Oxen; and thus the Particles of one Man's Body may frequently become the Parts of another Man's Body. And this is more conſpicuous in the Country of *Cannibals*, where they kill and eat their Slaves. How then is it poſſible that each human Body ſhould have its own Particles?

4. There is ſufficient Ground to ſay, the ſame Perſon riſes again from the Dead tho' there be not one Atom of the ſame Matter that was buried, which goes to make up the Body in the Reſurrection; for *Methuſelah*, when a Child, and when one, two, three, four or five hundred Years old, and when he had lived nine hundred and ſixty Years before his Death, had actually by Perſpiration, and Attrition, *&c.* changed the Atoms that compoſed his Body perhaps thirty or forty times over, and yet 'tis the ſame compound Subſtance of Soul and Body, the ſame conſcious Being or Perſon ſtill, 'tis *Methuſelah* both at his Birth, at five hundred Years old, and at his Death. Beſides, If all the ſame Atoms that ever belonged to *Methuſelah* muſt be raiſed, what a bulky Man would that be? And further, what need is there that the laſt dying withering Particles ſhould be raiſed to make *Methuſelah* again, when any other Atoms that ever belonged to him, and in which he practiſed Virtue or Vice, are as much the ſame *Methuſelah?* And yet all of theſe cannot be crowded into

into his Body, without making a Giant of him. So that we ſee there is no need of the ſame Atoms or Particles to make the ſame Perſon, if there be but the ſame thinking Mind conſcious of his Actions in this Life, united to a proper Portion of Matter. 'Tis Conſciouſneſs makes the Perſon.

This is the Force of the Arguments of thoſe who deny the Neceſſity of having the ſame Body raiſed. And I think the Arguments on both Sides have ſome real Strength in them.

Now I would humbly enquire, whether all the Differences of theſe Diſputants, which I have endeavoured briefly to ſet in their ſtrongeſt Light, may not be compremis'd in this manner.

I. It is granted that it cannot be the very ſame Body in all the Particles or Atoms of it which were united to the Soul in this World, that ſhall be raiſed and united to it in the Reſurrection:

(1.) Becauſe all the Atoms that ever belonged to the animal Body of *Methuſelah* in nine hundred and ſixty nine Years would make a moſt bulky and diſproportionate Figure at the Reſurrection: And for the ſame Reaſon all the Antidiluvians, who lived ſo many hundred Years, would be raiſed as Giants in compariſon of us in later Days. And on the ſame Account alſo, every Man at the Reſurrection would be ſo much larger than his Cotemporaries and Neighbours, as he lived longer

longer on Earth ; which is a vain and groundleſs Conceit.

(2.) All the ſame Particles, even of the Body when it died and was buried, can hardly be raiſed again and united to the Soul of any Man, becauſe ſeveral of the Particles that made one Man's Body at the Time of his Death are very probably turned to Graſs or Plants, and ſo become Food for Cattle, or other Men, and are become part of the Bodies of other Men ſeveral times over. And thus there might be great Confuſion, becauſe the ſelf-ſame Particles would belong to the Bodies of ſeveral Men.

Beſides, here's one pious Man perhaps died of a Dropſy, or exceſſive fat and unwieldy ; muſt he be raiſed in that unwieldy Bulk and thoſe extravagant Dimenſions? Another was worn out to a meer Skeleton by a Conſumption ; muſt his raiſed Body be of this ſlender and withered Shape or Size? Others it may be from their very Birth were in ſome Part defective, or redundant ; and in theſe Caſes muſt not ſome Particles be left out or added in the Reſurrection to form a proper Body for the glorified Soul? All theſe Conſiderations prove that all the preciſe Number of Atoms that ever made up a Man's Body here on Earth, or even thoſe that belonged to it at the Hour of Death, are not neceſſary to be ſummoned together to form the ſame Man at the Reſurrection.

II.

II. It is alſo granted, that it muſt be in ſome Senſe the ſame Body raiſed which was buried, in order to anſwer ſeveral Expreſſions both of *Jeſus Chriſt*, and of the Apoſtle *Paul* in their Diſcourſes of the Reſurrection. And we may allow without any Difficulty, that ſo many of the ſame Particles of any Man's Body which were buried may go to conſtitute the new raiſed Body, as juſtly to denominate it the ſame Body, and which being united to the ſame Soul, do render the new-raiſed Man the ſame Man and the ſame Perſon who died: For 'tis evident that a very few of the ſame Atoms or Particles which were laid in the Grave are ſufficient for this Purpoſe, if we conſider theſe two Things.

1. 'Tis very probable that a new-born Infant in its Muſcles and Nerves (and eſpecially in its Bowels and Bones) has ſome original, eſſential, and conſtituent Tubes, Fibres or ſtaminal Particles (if I may ſo call them) which remain the ſame and unchanged thro' all the Stages and Changes of Life in following Years, how much ſoever the external and fleſhy Parts may be changed. And ſome Philoſophers maintain that the Growth of the animal Body is nothing but the Dilatation, Stretching or Spreading of theſe eſſential ſtaminal Parts, theſe Fibres, Tubes or Membranes, by the Interpoſition of new additional Particles; which additional and accidental Particles are the only Things which are in perpetual Flux, and always changing. And it may be added alſo, that

that perhaps theſe eſſential ſtaminal Particles are of ſuch a Nature as not to join and unite with other animal or human Bodies, and become an eſſential conſtituent Part of them: And therefore if Mankind were all *Cannibals*, and eat one another as well as the Fleſh of Beaſts, yet the ſame ſtaminal or conſtituent Particles cannot belong to the Bodies of two or more human Perſons. It has been ſaid by ſome Philoſophers that the meer membranaceous Parts of an animal Body, tho' eaten by other Animals, will not eaſily if at all digeſt; and then they canot be ſanguified or turned into Blood, nor become nutritive Juices, nor form the conſtituent and eſſential Parts of other Animals: Now a great many of the original conſtituent Parts of human Bodies are membranaceous; for ſome ſuppoſe almoſt the whole Body to be made of Tubes and Juices, with little interſperſed Fibres which are added by Nutrition. And how far the Bones, *i. e.* original meer oſſeous Subſtances may be indigeſtible alſo, who can tell?

Upon the Whole, it ſeems that theſe eſſential, conſtituent or ſtaminal Particles, whatſoever they be, whether oſſeous, or membranaceous, or of any other Quality, and how many or how few ſoever they be, always abide the ſame, even when the Body is greatly enlarged by the perpetual new Interpoſition of additional nutritive Particles, which are in continual Flux. I ſay alſo, that it ſeems that theſe unchanging Parts, whether few or many,

in

in union with the ſame Soul, are abundantly ſufficient to denominate *Methuſelah the Infant*, *and Methuſelah the aged*, the ſame Perſon; and then alſo theſe few eſſential conſtituent Particles preſerved by Divine Providence, and raiſed in the Formation of the new Body, and united to the ſame Soul, are ſufficient to denominate *Methuſelah dying* and *Methuſelah riſing* the ſame Perſon ſtill, both Soul and Body.

Here it may be *objected* indeed, that there is no need of running to ſuch *eſſential conſtituent Particles* of the Body of a Man in order to denominate him the *ſame Man*, at ſixteen or ſixty, or ſix hundred Years of Age; for theſe philoſophical Ideas of *conſtituent Particles* come not within the Notice of the Bulk of Mankind, and yet all Mankind agree to call *Methuſelah* the *ſame Man*, and his Body the *ſame Body*, tho' it be maintained by the continual Succeſſion of new Particles of Matter, ſince they are united to the ſame Soul. This ſeems to be ſufficient for this Purpoſe.

This *Objection* may be *anſwered* two ways, (1.) that as theſe conſtituent and unchangeable Particles of the Body do not come within the Notice of the Bulk of Mankind, ſo neither does the continual Change and Succeſſion of new Particles by Perſpiration and Nutrition come within their Notice; and therefore the Bulk of Mankind call it the *ſame Body* becauſe it appears in the Groſs to be the ſame: But, if you prove *'tis not the ſame* by inſenſible Alterations, I may prove *'tis the ſame* by theſe inſenſible

inſenſible unchanging Parts. In one Caſe the Alteration is inſenſible; and the conſtituent Particles abide unchanged without ſenſible notice in the other Caſe; and if one Diſputant borrows his Objection from *Philoſophical Ideas*, the other may borrow his Solution from *Philoſophical Ideas* too.

It may be anſwered (2.) that the Language of Scripture and the Reaſons for the Reſurrection of the Body, in ſome Reſpects *the ſame* with that which was buried, are, ſo ſtrong, that I think they cannot well be anſwered without ſuppoſing ſo many Particles of the ſame Body which was buried to be raiſed again, as may be ſufficient upon ſome juſt Principles to give it the Name of the *ſame Body*, and there can be no more required.

2. The Similitude which the Apoſtle uſes in that Diſcourſe concerning *a Grain of Wheat*, *V.* 37, 38. plainly teaches us, that tho' there ſhould be but a very few of the ſame individual Particles raiſed from the Duſt, and mixed with a Multitude of other new Particles, yet theſe few are ſufficient to denominate it the *ſame Body*, ſo far as the Apoſtle's Argument requires it. For 'tis evident that when a Grain of Wheat is ſown into the Ground, far the greateſt Part of the Grain quickly dies and rots in the Earth; and there are but a very few ſmall Particles of the ſame Grain which compoſe the *Germen* or Bud of the new Plant, and which do really grow up into, and help to form and compoſe the new Stalk and the

Ear of Corn, together with the Addition of a Multitude of other new Atoms borrowed from the Earth and Water.

In the ſame manner the Apoſtle leads us to ſuppoſe there may be a few of the ſame original and eſſential Parts of the Body of a Man which are buried in the Grave, which are the Original, the Spring and Foundation of the new-raiſed Body, tho' there may be thouſands of other new Atoms mixt with them.

Now 'tis eaſy to ſuppoſe, that the Power and Providence of God may according to this Suppoſition, preſerve and raiſe the ſame Body at the Reſurrection. For if the new-raiſed Body has but as many eſſential Atoms of the dead Body in it, as the new Stalk and Ear of Wheat has of the Grain that was ſowed, 'tis enough: And the Union of the ſame conſcious Mind or Spirit, makes it the ſame Man.

I would aſk Leave to conclude this Eſſay with this ſhort and plain Remark. There are ſome of thoſe who follow Mr. *Locke* and his Way of thinking in many of theſe Matters, who alſo go a Step further, and ſuppoſe the Spirit or conſcious Principle in Man to loſe all Conſciouſneſs when the Body dies, and that at the Reſurrection God ſhall give Conſciouſneſs to the Perſon again, or make a conſcious Principle to exiſt in the new-raiſed Body. Now if this be the Caſe, then 'tis neither the ſame Body nor the ſame Spirit that is raiſed from the Dead, but a new Spirit and a new Body, which I think muſt neceſſarily be called *ano-*

ther

ther Perſon, as well as Mr. *Locke* would call it *another Man*: and I am ſure ſuch a new made Creature conſiſting of another Maſs of Matter, and another conſcious Principle, can never be juſtly rewarded or puniſhed for *perſonal* Virtues and Vices, good or evil Actions, done in the former Life by a different Body and Spirit, *i. e.* by *another Perſon* *.

* I have not obſerved any Diſtinction here between the *ſame Man* and the *ſame Perſon*, tho' Mr. *Locke* makes a great Difference. Of this Matter ſee *Eſſay* 12. *Sect. ult.*

ESSAY IX.

Of the Production, Nouriſhment and Operations of Plants and Animals.

SECT. I.

Creatures produce their own Kind.

WHEN I ſurvey the Works of Nature with a more attentive Eye, I am ſurprized to find with what marvellous Exactneſs every Creature draws its own Picture, or propagates its own Likeneſs, tho' in different Manners of Operation. The Fox produces a living Fox, the Gooſe drops her Egg, and hatches the young Gooſe, and the Tulip lets fall its Seed into the Earth, which ferments and ſwells and labours long in the Ground, till at laſt it brings forth a Tulip.

Is it the natural Sagacity of Foxes that enables them to form their own Image ſo accurately? By no means; for the Gooſe and the Flower do the like: The ſprightly and the ſtupid, the ſenſible and the ſenſeleſs, work this

this Wonder with equal Regularity and Perfection; and the Plant performs as well as the Animal.

'Tis not poſſible that any of them ſhould effect this by any peculiar Rules of Art and Contrivance, for neither the one nor the other are at all acquainted with the Compoſition or Progreſs of their Work. The Bird is entirely ignorant of the wondrous vital Ferment of her own Egg, either in the Formation of it, or the Incubation: and the Mother-Plant knows as much of the Parts of the young Plant, as the Mother-Animal knows of the inward Springs and Movements of the young little Animal. There could be no Contrivance here, for not any of them had any Thought or Deſign of the final Production: They were all moved, both the Beaſt, Bird and Flower, by the material and mechanical Springs of their own Nature to continue their own Species, but without any ſuch Intent or Purpoſe.

Give Souls to all the animal Race, and make thoſe Souls as immaterial and as intelligent as you can; attribute to them what good Senſe you pleaſe in other Affairs of their puny Life; allow the Brutes to be as rational and as cunning as you could wiſh or fancy, and to perform a thouſand Tricks by their own Sagacity; yet in this Matter thoſe intellectual Powers muſt all ſtand by as uſeleſs; the ſenſeleſs Vegetable has as much Skill here as the Animal; the Gooſe is compleatly as

wiſe as the Fox or the Grey-hound; they draw their own Pourtraits with as exquiſite Art and Accuracy, and leave as perfect Images behind them to perpetuate their Kind.

Amazing Proof, and inconteſtible Argument of ſome ſuperior Wiſdom! Some tranſcendent contriving Mind, ſome divine Artificer that made all theſe wondrous Machines *, and ſet them at work! The Animal and the Vegetable in theſe Productions are but meer Inſtruments under his ſupreme ruling Power; like artleſs Pencils in a Painter's Hand, to form the Images that his Thought had before deſign'd: And 'tis that God alone who before all Worlds contrived theſe Models of every Species in his own original Idea, that appoints what Under-agents he will employ to copy them.

In the Week of the Creation, he bid the *Earth* teem with Beaſts and Plants; and the *Earth* like a common Mother brought forth the Lyon, the Fox, and the Dog, as well as the Cedar and the Tulip, *Gen.* i. 11, 24. He commanded the *Water* to produce the firſt Fiſh and the Fowl; behold the *Waters* grow pregnant; the Trout and the Dolphin break forth into Life, the Gooſe and the Sparrow ariſe and ſhake their Wings, *Gen.* i. 20, 21. But

* *Note*, I call them all *Machines* here, not preſuming to determine that the Nature of Brutes is meer Machinery; but when I ſpeak of the natural Production of their Bodies, I think theſe Bodies, as well as the Bodies of Man, are meer Engines or *Machines*, whatſoever Souls may be united to them.

But two common Parents *Earth* and *Water* to the whole animal and vegetable World! A God needs no more. And tho' he was pleas'd to make uſe of the Water and the Earth in theſe firſt Productions, yet the Power and the Skill were much the ſame as if he had made them immediately with his own Hands.

Ever ſince that Week of creative Wonders God has ordered all theſe Creatures to fill the World with Inhabitants of their own Kind; and they have obey'd him in a long Succeſſion of almoſt ſix thouſand Years. He has granted (ſhall I ſay) a divine Patent to each Creature for the ſole Production of its own Likeneſs, with an utter Prohibition to all the reſt; but ſtill under the ever laſting Influence of his own ſupreme Agency upon the moving Atoms that form theſe Plants or Animals. God himſelf is the Creator ſtill.

And 'tis evident, that he has kept a Reſerve of Sovereignty to himſelf, and has diſplayed the Enſigns of it in ſome important Hours. *Egypt* was once a glorious and tremendous Scene of this Sovereignty: 'Twas there that he ordered the Rod of *Moſes*, a dry and lifeleſs Vegetable, to raiſe a ſwarm of living Animals, to call up a Brood of Lice in Millions without a Parent, and to animate the Duſt of the Ground into a noiſom Army. 'Twas there he bid *Aaron* wave the ſame Rod over the Streams and the Ponds, and the ſilent Rod under divine Influence, could bring forth croaking Legions out of the Waters without End or Number.

But theſe are his Works of Miracle and Aſtoniſhment, when he has a Mind to ſhew himſelf the Sovereign and the Controller of Nature: Without his immediate Commiſſion not one Creature can invade the Province of another, nor perform any thing of this Work but within its own peculiar Tribe. Even MAN the Glory of this lower Creation, and the wiſeſt Thing on Earth, would in vain attempt to make one of theſe common Vegetables, or theſe curious animated moving Machines. Not all the united Powers of human Nature, nor a Council or Club of the niceſt Artificers with all their Enginry and Skill can form the leaſt Part of theſe Works, can compoſe a Fox's-Tail, a Gooſe-Quill, or a Tulip-Leaf. Nature is the Art of God, and it muſt for ever be unrival'd by the Sons of Men.

Yet Man can produce a Man. Admirable Effect, but artleſs Cauſe? A poor, limited, inferior Agent! the Plant and the Brute in this Matter are his Rivals, and his Equals too. The human Parent and the Parent-Bird form their own Images with equal Skill, and are confin'd each to its own Work. So the Iron Seal transfers its own Figure to the Clay with as much Exactneſs and Curioſity as the Golden one: Both can transfer only their own Figure.

This appears to me a glorious Inſtance wherein the Wiſdom and Power of God maintain their own Supremacy, and triumph over all the boaſted Reaſon and intellectual

Skil

Skill of Men; that the wiſeſt Son of *Adam* in this nobleſt Work of Nature, can do no more than a Flower or a Fly; and if he would go out of his own Species and the appointed Order of Things, he is not able to make a Fly, nor a Flower; no, not a Worm nor a ſimple Bulruſh. In thoſe Productions wherein Mankind are meerly the Inſtruments of the God of Nature, their Work is vital and divine; but if they would ſet up for prime Artificers, they can do nothing: A dead Statue, a painted Shadow on a Canvaſs, or perhaps a little brazen Clock-work is the ſupreme Pride of their Art, their higheſt Excellence and Perfection.

Let the Atheiſt then exert his utmoſt Stretch of Underſtanding, let him try the Force of all his mechanical Powers, to compoſe the Wing of a Butterfly, or the meaneſt Feather of a Sparrow: Let him labour, and ſweat and faint, and acknowledge his own Weakneſs: then let him turn his Eye, and look at thoſe wondrous Compoſures, his ſon or his little Daughter and when their Infant Tongues ſhall enquire of him and ſay, *Father who made us?* Let him not dare aſſume the Honour of that Work to himſelf, but teach the young Creatures that *there is a God*, and fall down on his Face, and repent and worſhip.

It was God who ſaid at firſt, *Let the Earth bring forth Graſs, and the Herb yielding Seed --- after his kind--and the living Creature after his kind*; and when this was done, then with

a creating Voice he bid thoſe Herbs and thoſe living Creatures, *be fruitful and multiply* to all future Generations. *Great Things doth he which we cannot comprehend. — But he ſealeth up the Hand of every Man, that all Men may know his* divine *Work.* Gen. i. 11, 25. *Job* xxxvii. 5, 7.

SECT. II.

The Laws of Nature ſufficient for the Production of Animals and Vegetables.

'TWAS a Work of Wiſdom, infinitely various to form all the Variety of Creatures that ſwim or fly, that run, creep, or move in the Air, Earth and Water, and to fit every one of them with Organs and connatural Motions ſuited to the Purpoſes of their different Life: And it is the ſame Wiſdom which dictated the Laws of Nature and Motion in the firſt Week of the Creation, and the ſame Power which firſt put them in Execution, that proceed by the Force of thoſe unchanging Dictates, to produce all the ſucceſſive Nations and Ages of the animal and vegetable Worlds. Thoſe great prolific Words, *Be ye fruitful and multiply*, have Almighty Power in them, and reach to the End of Time. God himſelf is the Supreme Agent and Mover, in all the fermenting Materials that teem with Plants and Animals, and he acts ſtill according to the original and uniform Laws of Motion which his Wiſdom firſt dictated, and his Power impos'd on the Parts of Matter. But

But there have been ſome Philoſophers and Divines who imagine, that becauſe they cannot ſolve the Production of Plants and Animals by thoſe obvious Laws of Motion and Matter which we are acquainted with, therefore no Plant or Animal is produc'd without ſome new immediate and preſent interpoſure of the Skill, and Power, and Agency of God, different from the Original Dictates or Laws of Motion. Thus the common Laws of Nature which God has eſtabliſhed, being in their Eſteem not ſufficient for this End, they introduce his own immediate Hand in Millions of Inſtances to counterwork thoſe Laws, or to aſſiſt the Deficiency of them by a creating Power. By this means God is as it were conſtrained to exert a miraculous Influence at the Generation and Production of every new Animal throughout the World, as tho' it were impoſſible that a Mouſe, a Pigeon, or a Butterfly ſhould be formed without it; and thus his Work of Creation is never finiſhed, and Miracles are wrought by Millions every Day: for whatſoever is done by him in the material World not according to the Laws of Nature, is *Miracle*.

In my Opinion it is a raſh and venturous Thing to determine that theſe Productions are impoſſible according to the common appointed Laws of Nature and Motion; and to ſet intellectual Agents at work upon them meerly becauſe our Knowledge of theſe Laws of Matter

Matter is not yet ſufficient to deſcribe the manner how it may be done.

Would it not be a ridiculous and unphiloſophical Account of the Motion of all the Planets with all their Satellites or Moons in our Age, to tell the World that ſo many diſtinct Angels roll'd them round the Sun, and gave us Day and Night, Summer and Winter? Let us run back to the old ſolid Spheres and their Epicycles again, and pleaſe ourſelves and our Hearers with deſcribing, how they are turned round by angelick Powers with ſweet and heavenly Muſick, and this is the Harmony of the Spheres. But is this Philoſophy? May not the original projectile Force propoſed by Sir *Iſaac Newton*, which he ſuppoſes reſtrained by the centripetal Force or Gravitation, compleatly anſwer this End without the inceſſant Labours of an Angel? And is not this Law of Nature, ſuppoſing it to be originally appointed and ſtill preſerved by the Creator? Is there any need of immediate new Interpoſitions of his Almighty Influence in any different manner to keep all the planetary Worlds in their proper Motions ſo long as he deſigns them to move? And does not this ſingle Principle of Gravitation, or the mutual Attraction of all Matter, perform various Millions of Effects in this our Globe of Earth and Water among inanimate as well as animated Beings?

It may not be amiſs to take Notice here alſo, that ſome very ingenious Moderns have

ſuppoſed

ſuppoſed the peculiar Powers of *Magnetiſm*, *Electricity*, *Elaſticity*, and others, are divine Laws of Motion appointed by God himſelf in the material Creation, and ſuperadded to the *eſſential Properties of Matter* conſidered meerly as an extended ſolid Subſtance.

And what if we ſhould ſuppoſe there may be ſome other ſuch general Law of Motion ſuperadded to the *vegetable* World as the peculiar Spring of all Vegetation? How ſimple a Principle is *Gravity* in itſelf? How multiform and infinite are its Effects? May not all Plants in their Riſe and Growth, their verdant Foliage, their beautiful Bloom and Seed in ſucceſſive Ages, take their Origin from another ſuch ſimple Principle applied by the Skill of the divine Artificer, who gave all theſe vegetable Beauties their firſt Exiſtence?

And what if we ſhould go one Step further? Perhaps the Laws of Motion which God has ordained in the *animal* World may ſtill be ſomewhat different from, or ſuperadded to thoſe of the *vegetable*; and theſe additional Laws may be ſufficient to form all the Eggs and Animals in the World: And if theſe Laws are ſettled and conſtant, this is Nature as much as the other. 'Tis very unphiloſophical to introduce the divine Agency, either contrary to or different from, the ſettled Rules of his own Creation, without a juſt apparent Neceſſity, or where the Caſe requires not a proper *Miracle* to be wrought: Yet how frequently is this done by Men who pretend to Philoſophy? Or

if

if God himſelf be not immediately ſet at work afreſh, what ſort of ſtrange inferior Agents, what *Anima Mundi's*, what *Plaſtic Powers* have been invented and imployed to mould and form every new Plant and Animal?

And as this ſort of Solution of Difficulties is unphiloſophical; ſo neither is it very honourable for a Divine to ſay concerning God our Creator, that the Rules of natural Motion which he hath eſtabliſh'd in the World, are not ſufficient for the hourly and neceſſary Purpoſes and Effects of Providence. Let us grant that the Bodies of a Fly or a Mite, as well as an Ox or an Eagle, contain in them innumerable Veſſels and Humours, Tubes and Strings through which animal Life is diffuſed, and reigns there in a thouſand regular Motions and ſurpriſing Appearances: Let us alſo allow that the Formation of one of theſe animal Engines by two others, *i. e.* the Propagation of their Species is incomparably the niceſt and moſt ſurpriſing Effect that theſe Creatures ever perform: What then? ſurely you will not ſay, that their own Senſe or Reaſon, or any conſcious Powers they may be endued with, are ſufficient for this Purpoſe, or are capable of ſuch Productions: You will never grant it is owing to the Skill of the Parent-Animals, that ſuch ſwarms of wondrous young Animals are propagated in ſucceſſive Ages: Why then may we not attribute to the all-wiſe God the Glory of aſſuming them as his Inſtruments into his grand Scheme of Providence, and employing them

them according to the common Laws of Nature and Motion, which he hath eſtabliſhed each to produce his own Image? Why may not a God have ſuch an all-pervading ſtretch of Thought, as to ſupply the Univerſe with Inhabitants in a perpetual Succeſſion, by the Rules which he at firſt ordained amongſt them, Rules which he ſtamped with his own Authority? and as he then pronounced them the Laws of Nature, ſo he continues their Agency by his divine and univerſal Influence through all Generations.

Will you ſuppoſe that it derogates from the Glory of divine Providence, to repreſent the great Engine of this viſible World, as moving onward in its appointed Courſe, without the continual interpoſure of his Hand? 'Tis granted indeed, that his Hand is ever active in preſerving all the Parts of Matter in all their Motions according to theſe uniform Laws: But I think it is rather derogatory to his infinite Wiſdom, to imagine that he could not make the Vegetable and Animal, as well as the inanimate World of ſuch ſort of Workmanſhip, as might regularly move onward in this manner for five or ſix thouſand Years, without putting a new Hand to it ten thouſand times every Hour: I ſay *ten thouſand times every Hour*; for there is not an Hour nor a Moment paſſes, wherein there are not many Millions of Animals actually forming in the *Southern* or *Northern* Climates.

He that can make a Clock with a great Variety of Beauties and Motions to go regularly

a Twelve-Month together, is certainly a ſkilful Artiſt; but if he muſt put his own Hand to aſſiſt thoſe Motions every Hour, or elſe the Engine will ſtand ſtill, or the Wheels move at random, we conceive a much meaner Opinion of his Performance and his Skill. On the other hand, how glorious and divine an Artificer would he be call'd, that ſhould have made two of theſe Pieces of Clock-Work above five thouſand Years ago, and contrived ſuch hidden Springs and Motions within them, that they ſhould have joined together, to perpetuate the Species, and thus continue the ſame ſort of Clocks in more than a hundred Succeſſions down to this Day? Tho' each of their Springs might fail in Forty Years time, and their Motions ceaſe, or their Materials decay, yet that by the means of theſe two original Engines, there ſhould be Engines of the ſame kind multiplied upon the Face of the Earth, by the ſame Rules of Motion which the Artiſt had eſtabliſhed in the Day when he firſt formed them.

Such is the Workmanſhip of God; for *Nature* is nothing but his *Art*. Such is the amazing Penetration of divine Skill, ſuch the long Reach of his Foreſight, who has long ago ſet his Inſtruments at work, and guarded againſt all their poſſible Deficiencies; who has provided to repleniſh the World with Plants and Animals to the End of Time, by the wondrous Contrivance of his firſt Creation, and the Laws he then ordain'd.

Thus

Thus every Whale, Eagle and Apple-tree, every Lion and Roſe, Fly and Worm in our Age, are as really the Work of God, as the firſt which he made of the Kind. 'Tis ſo far from being a Derogation to his Honour, to perpetuate all the Species by ſuch Inſtruments of his Agency for many Ages, that it rather aggrandizes the Character of the Creator, and gives new Luſtre to Divine Wiſdom: For if any Thing can be ſaid to be eaſier or harder in this ſort of Almighty Work, we may ſuppoſe it a more glorious Difficulty for a God to employ a Sparrow or an Oyſter, to make a Sparrow or an Oyſter, than to make one immediately with his own Hand. Perhaps there is not a Waſp nor a Butterfly now in the World, but has gone through almoſt ſix thouſand Anceſtors, and yet the Work of the laſt Parent is exquiſitely perfect in Shape, in Colour, and in every Perfection of Beauty: But it is all owing to the firſt Cauſe. This is Wiſdom becoming a God, and demands an eternal Tribute of Wonder and Worſhip.

APPENDIX.

I KNOW ſome modern Philoſophers have ſuppoſed that the Formation of Plants and Animals is beyond the Reach and Power of the Laws of Nature, and therefore they con-

ceive that the Creator himſelf in the firſt Individuals of every Kind, actually form'd and included all the future Plants and Animals that ſhould ever proceed from them compleat in all their Parts: and theſe were contain'd in their diſtinct Seeds, and perhaps decreaſing in bulk ſucceſſively in Proportion almoſt infinitely leſs and leſs, as the Seed is leſs than the Plant or Animal, and as each Animal and Plant in this Miniature or minute Form, is leſs than the ſame Plant and Animal full grown: And they ſuppoſe that the daily Productions of Nature are nothing elſe but the unvailing of theſe little Plants and Animals in continual Succeſſion, bringing them forth into light, and ſtretching and enlarging their Parts by new interwoven Fibres, and pulpous Matter coming between.

One great Reaſon they give for this is, that in the minute Bud of a Plant, ſuppoſe a Tulip even in the Winter, they can by a Microſcope diſcern the little Stalk and Leaves of the Flower, and the ſmall triangular Pod of Seed in it: And ſince Matter is *infinitely diviſible*, ſay they, why may not this minute Tulip contain another, and that contain a third, and that a fourth, even to the Number of many Thouſands in their diminiſh'd Proportions?

To this I anſwer, in general, That from this one Poſition. *(viz.)* That the Microſcope ſhews the Formation of a perfect Plant in its Bud a few Months before the Time of its Appearance in full Growth, 'tis a vaſt Leap to the

the Concluſion, that therefore it may contain Thouſands and Millions of ſuch perfect Plants in their infinitely decreaſing Proportions, and that for five or ſix thouſand Years before the Times of their Appearance. But I would give ſeveral particular Reaſons againſt this Opinion.

1. If we conſider the exceeding ſmall Proportion that is between the little ſuppoſed Animals or Vegetables which are contain'd in the Seed, and the Animals or Vegetables in their full growth, it will appear that in the fourth, fifth, or ſixth Generation they will be ſmaller than the homogeneous Particles of the ſubtileſt Liquors, and therefore they cannot be organized and living Bodies, all which require Tubes with Liquids in them. How much more impoſſible is this Suppoſition when we attempt to derive one hundred Generations of Men or Brutes in this manner, or ſix thouſand Generations or Succeſſions of annual Inſects or Plants?

2. If to relieve this Difficulty, you run into infinite poſſible Diviſibilities of Matter, yet there is all the reaſon to infer theſe cannot be actually ſo in Nature, *i. e.* not infinitely ſmall Particles, becauſe of the determin'd Limit of the Size of all homogeneous Particles of Liquors, which have ever yet fallen under the Search of Philoſophy.

I add here further, that this ſort of Argument from the *infinite Diviſibility of Matter* would be as powerful to prove this ſtrange

Doctrine, if the World had ſtood ſix hundred thouſand Years, or even in an eternal World, as it is in a World of ſix thouſand Years ſtanding.

And let it be obſerved, that Arguments drawn meerly from *Infinites*, lead our finite reaſoning Powers ſo far out of their own Depth, that we are loſt in them, and can hardly ever be well aſſured that our Arguments are effectually concluſive, or our Inferences well drawn. See *Eſſay* 12. *Sect.* 3.

3. Suppoſe every Acorn that grew on the firſt Oak ſhould contain in the little Germ or Bud of it (which is a very ſmall part of the Acorn itſelf) all the Oaks that might be produced from thence even to the End of the World in one ſingle Line of direct Succeſſion, this is prodigious and aſtoniſhing beyond all reaſonable Belief: but according to this Hypotheſis, we muſt ſuppoſe, that the Germs or Buds in each of theſe Acorns, do actually contain alſo all the Acorns that thoſe Oaks might annually produce, together with all their annual Leaves; and again, all the younger Oaks which might be produced from each of theſe Acorns in ten thouſand collateral Succeſſions: now this raiſes the Number to ſuch Millions of Millions, that nothing but the incomprehenſible Idea of *Infinite*, can ever be ſuppoſed to anſwer; and at beſt in this Controverſy, it ſeems rather to be a Refuge of Darkneſs to hide in, than a clear Explication.

4. We

4. We find many Plants may be produced by Slips or Twigs of the ſame Plant, and that of Trees as well as Herbs and Flowers, ſuch as the Vine, the Willow, *&c.* And it is not to be ſuppoſed that each *Twig* and *Slip* have had all theſe future Seeds and Trees actually formed in them, together with all their Leaves and Fruits the firſt Week of the Creation, even tho' we ſhould allow every *Seed* to contain all theſe infinite Succeſſions of their Species.

5. Have we not Reaſon to conceive that every Seed of a Plant is formed alike? Has not then every Acorn and every Bean that is devour'd by Animals for their Food, and every Grain of Corn as well as all the Fruits of the Trees and their Seeds which are eaten by Men and Birds, the ſame Millions of theſe compleat Trees or Plants, Corn or Herbage contain'd in them in Miniature which are aſcribed to thoſe other Seeds and Fruits which are actually ſown or planted out, in order to produce new Vegetables of their own Kind? Now if it be ſo, What an infinite Number of compleat Trees, Flowers, Plants and Herbs would be made by the exquiſite Artifice of the Creator to no Purpoſe? And thus a vaſtly greater part of the original and immediate Workmanſhip of God in the firſt Week of Creation, would be Labour in vain, ſince none of it attains its proper End, but only in thoſe few Seeds and Fruits which afterwards grow up into com-

pleat Plants or Trees, which is not one to Ten Thouſand or perhaps to a Million.

The ſame Thing might be ſaid of Animals. If every Male-Animal contains in it Millions of Animalcules, as Mr. *Lewenhoeck* ſuppoſes by the uſe of his Microſcope, and every ſuch Male Animalcule actually contains Millions of leſs Animalcules, and ſo on in Progreſſion for a Hundred or a Thouſand Generations of Men, Brutes or Inſects, ſince the Days of *Adam*, what an *immenſe Waſte* of Creatures is here? What an amazing and ſuperfluous Multitude of Dogs, Cats, Lions, Bears, Horſes, Elephants, Eagles, and Whales, Worms and Flies, as well as of Men and Women, all form'd with their Millions of Tubes and Fibres by exquiſite Wiſdom, and all deſigned to be meer *Waſtes of Nature*, except thoſe very few comparatively which come into the viſible World as diſtinct Animals; ſince for every Animal that comes to be born there would be many Millions loſt and waſted according to this Hypotheſis? Is it poſſible that the Wiſdom and Work of a Creator ſhould be waſted in ſo inſignificant a manner to ſupport ſuch an Hypotheſis or Conjecture?

6. When a Limb of an Animal, or ſome neceſſary Part of a Plant has been broken off, what powerful Efforts has ſometimes been obſerved in the Operations of Nature towards the Formation of a new Limb, or part of the ſame Kind? I have ſeen the Claw of a Carb riſing up in a leſs Form, in the Room of

of one which the Creature ſeems to have been deprived of by ſome injurious Accident: Now I would enquire, Whether this Creature was formed at firſt in its minute Original, with three Claws? Or whether there was an actual Proviſion made for every ſuch Accident in the firſt Week of the Creation?

In the vegetable World theſe regular Productions of the new Parts of a Plant, are much more common. When the top of an Aſh is cut off to make a Pollard of it, or of a Plum-tree to make it bear more, or better Fruit, I beg leave to enquire, Whether all the Branches, Leaves, and Fruit, that ſprout afterward from the Stock yearly in Twenty, Thirty, or Forty Years were formed actually in the firſt Aſh, or Plum-tree, that God created? Did the Creator provide actually ſufficient Leaves and Fruit in every firſt Tree, to anſwer for ſuch voluntary Mutilations or Loppings of the Gardiner in Five or Six Thouſand Years to come? How unreaſonable is it to ſupoſe this?

But on the other hand, if the natural Laws of Motion are left to form the Limb of an Animal, or the Leaves, Branches and Fruit of a Vegetable, on ſuch Occaſions, Why might not the ſame Divine Wiſdom contrive Laws which might form the whole Animal or Vegetable in its appointed Succeſſions in the Courſe of Nature?

7. In the Formation of Inſects, and eſpecially of larger Animals, daily Experiment deſtroys this Hypotheſis, by ſhewing us, that

the Animal, in ſeveral Parts and Members of it, is imperfect and defective in the Embryo, the Work is unfiniſh'd, and the Laws of Nature finiſh it by degrees, till it becomes ripe for Production.*

I think this Argument is concluſive alone, but all theſe Conſiderations put together, give us abundant Reaſon to believe, that 'tis by the continual and uniform Agency of God upon the material World, according to certain Laws of Matter and Motion which He has appointed in the vegetable and animal World, that there is a continual Succeſſion of Plants and Animals formed and maintain'd through all Ages, and the Honour of ſuch a wondrous Contrivance is due to the great Creator †.

SECT.

* This Account ſeems more exactly conformable to the Words of Scripture, *Pſal.* cxxxix. 16. *Thine Eyes did ſee my Subſtance, yet being imperfect, and in thy Book my Members were written, which in continuance were faſhioned, when as yet there was none of them.*

This ſame Doctrine of the gradual Formation of Animals is maintain'd by plain reaſoning upon Fact by Dr. *Woodward* in his *Vindication of his Eſſay on the Natural Hiſtory of the Earth*, cited out of the Manuſcript by Mr. *Holloway*, in that Part which is call'd the *Tranſlator's Introduction*, from p. 18, to p. 29, where he refutes *Lewenhoeck's* Notion of Generation riſing from the Animals *in Semine Maſculino*. This Book was publiſhed in 8vo in 1726. But I am inform'd that this Notion of all Animals being contain'd in the firſt Male Animal is now exploded among the wiſer Philoſophers of the Age.

† Perhaps after all it may be enquired here, Whether Plants and Animals can poſſibly be formed by the *Mechanical Motions and Powers of* Matter? To this I anſwer,

SECT. III.

Of the Nouriſhment and Growth of Plants.

IN the beginning of Time and Nature at the Command of God, the Earth brought forth Plants and Herbs, and Four-footed Animals in their various Kinds; but the Birds of the Air, as well as the Fiſhes, were produced by the ſame Command out of the Waters. This was intimated in a former Section. The Water and the Earth were the firſt appointed *Mothers*, if I may ſo expreſs it, of all the Animal and Vegetable Creation. Since that time they ceaſe to be *Parents* indeed, but they are the common *Nurſes* of all that breathes, and of all that grows. Nor is the Wiſdom of God much leſs conſpicuous in conſtituting two ſuch plain and ſimple Beings as the Earth and Water, to be the Springs of Nouriſhment and

ſwer, If by the Word *Mechanical*, we mean nothing elſe but thoſe Motions and Powers, which proceed from the eſſential Properties of Matter conſider'd as a meer ſolid extended Subſtance, then I cannot allow the Propoſition to be true: But if we conclude in the Word *Mechaniſm*, all thoſe additional Powers and Motions alſo, which ariſe from the Original Laws of Motion which God impoſed upon Matter at firſt, ſuch as *Gravitation* or *mutual Attraction*, and others of the ſame kind, then I allow that all Things in the ſucceſſive Ages of the World are formed *Mechanically*; always ſuppoſing the Divine Agency preſerving all the Atoms of Matter and their Motions according to theſe Laws. And 'tis my Opinion, that all beyond this is Miracle.

and Growth to ſuch an innumerable Variety of Creatures, than it was in the Formation of them out of two ſuch Materials. Is it not counted an admirable Piece of Divine Contrivance and Wiſdom, that the ſingle Principle of *Gravitation* ſhould be employ'd by the Creator, to anſwer ſo many Millions of Purpoſes among the heavenly Bodies in their regular Revolutions, as well as among the Inhabitants, and the Furniture of this earthly Globe where we dwell? And may it not be eſteemed as aſtoniſhing an Effect of the ſame ſupreme Wiſdom, that two ſuch ſimple Things as *Water* and *Earth* ſhould be the common Materials out of which all the ſtanding Ornaments, the vegetable Beauties, and the moving Inhabitants of this our World, whether flying or creeping, walking or ſwimming, ſhould receive their continual Suſtenance, and their Increaſe.

Let us firſt conſider this as it relates to the *vegetable* Part of the Creation. What a Profuſion of Beauty and Fragrancy, of Shapes and Colours, of Smells and Taſtes is ſcattered among the Herbs and Flowers of the Ground, among the Shrubs, the Trees, and the Fruits of the Field! Colouring in its original Glory and Perfection triumphs here; Red, Yellow, Green, Blue, Purple, with vaſtly more Diverſities than the Rainbow ever knew, or the Priſm can repreſent, are diſtributed among the Flowers and Bloſſoms. And what Variety of Taſtes, both original and compounded, of Sweet, Bitter, Sharp, with

with a thouſand nameleſs Flavours, are found among the Herbs of the Garden? What an amazing Difference of Shapes and Sizes appears amongſt the Trees of the Field and Foreſt in their Branches and their Leaves; and what a luxurious and elegant Diſtinction in their ſeveral Fruits? How very numerous are their diſtinct Properties and their Uſes in human Life? and yet theſe two common Elements, *Earth* and *Water*, are the only Materials, out of which they are all compoſed, from the beginning to the end of Nature and Time.

Let the Gardiner dreſs for himſelf one Field of freſh Earth, and make it as uniform as he can; then let him plant therein all the Varieties of the vegetable World, in their Roots or in their Seeds, as he ſhall think moſt proper; yet out of this common Earth, under the Droppings of common Water from Heaven, every one of theſe Plants ſhall be nouriſh'd, and grow up in their proper Forms; all the infinite Diverſity of Shapes and Sizes, Colours, Taſtes and Smells, which conſtitute and adorn the vegetable World, (would the Climate permit) might be produced out of the ſame Clods. What rich and ſurpriſing Wiſdom appears in that Almighty Operator, who out of the ſame Matter ſhall perfume the Boſom of the Roſe, and give the Garlick its offenſive and nauſeous Powers? who from the ſame Spot of Ground, ſhall raiſe the Liquorice and the Wormwood, and dreſs the Cheek of the Tulip

Tulip in all its glowing Beauties? What a Surprize to ſee the ſame Field furniſh the Pomegranate and the Orange Tree, with their juicy Fruit, and the Stalks of Corn with their dry and huſky Grains? To obſerve the Oak raiſed from a little Acorn, into its ſtately Growth and ſolid Timber; and that Pillars for the ſupport of future Temples and Palaces ſhould ſpring out of the ſame Bed of Earth, that ſent up the Vine with ſuch ſoft and feeble Limbs as are unable to ſupport themſelves? What a natural kind of Prodigy is it, that chilling and burning Vegetables ſhould ariſe out of the ſame Spot? that the Fever and Frenzy ſhould ſtart up from the ſame Bed where the Palſy and the Lethargy lie dormant in their Seeds? Is it not exceeding ſtrange, that healthful and poiſonous Juices ſhould riſe up in their proper Plants out of the ſame common Glebe, and that Life and Death ſhould grow and thrive within an Inch of each other?

What wondrous and inimitable Skill muſt be attributed to that ſupreme Power, that firſt Cauſe, who can ſo infinitely diverſify Effects, where the ſervile ſecond Cauſe is ſo uniform, and always the ſame*?

It

* *Note*, I do not pretend that all the Particles of which common Earth is compoſed, are exactly *uniform* and *ſimilar*: It is allowed that there are ſome Atoms of it much more ſuited to Vegetation than others, and perhaps to the Nouriſhment of ſome Vegetables rather than others. The ſame is granted concerning Water. But I call theſe Element, or Materials *uniform* in this Reſpect, that in every Crumb

It is not for me in this Place to enter into a long Detail of Philoſophy, and ſhew how the minute Fibres and Tubes of the different Seeds and Roots of Vegetables take hold of, attract, and receive the little Particles of Earth and Water proper for their own Growth; how they form them at firſt into their own Shapes, and ſend them up aſpiring above Ground by degrees, and mould them ſo, as to frame the Stalks, the Branches, the Leaves and the Buds of every Flower, Herb and Tree. But I preſume the World is too weary of *ſubſtantial Forms*, and *Plaſtick Powers* and Names without Ideas, to be perſuaded that theſe meer Creatures of Fancy ſhould ever be the Operators in this wondrous Work. It is much more honourable to attribute all to the Deſign and long Forethought of God the Creator, who form'd the firſt Vegetables in ſuch a manner, and appointed their little Parts to ferment under the warm Sun-Beams, according to ſuch eſtabliſh'd Laws of Motion, as to mould the Atoms of Earth and Water which were near them into their own Figure, to make them grow up into Trunk and Branches, which every Night ſhould harden into Firmneſs and Stability; and again, to mould new Atoms of the ſame Element into Leaves and Bloom, Fruit and Seed, which laſt being dropt into the

Crumb of Earth, and in every Drop of Water, there is no ſuch Variety poſſible, as actually to contain the proper Parts of every Plant in their own Form.

the Earth, ſhould produce new Plants of the ſame Likeneſs to the End of the World.

If I were to repreſent this Matter to the unlearned Part of Mankind, I might do it perhaps more intelligibly to them by this rude and coarſe Simile than by the niceſt Accuracies of philoſophical Deſcription. Suppoſe a Maſs of uniform green Wax of a very ſoft Temperature, and a little mollified by the Sun Beams, ſhould be ſtrained through ſmall round Pieces of Cloth of all Varieties of Texture, ſhall I name for Inſtance, Canvas, Sackcloth, Holland, Diaper, Lawn, *&c.* In ſome of which I will ſuppoſe the Threads were ſo woven, as to make different Stripes and Figures. Now if the Wax were forced upwards through all theſe Cloths, you would ſee a vaſt Variety, as it were, of riſing *Stamina* or Fibres, which ſhall be ſuppoſed to conſtitute the different round Stalks of theſe artificial Vegetables: Theſe would certainly make a very various Appearance to the Eye, according to their Shapes and Sizes; and perhaps alſo, in different Poſitions of Light and Shade might afford Glimpſes of as different colouring, as the Verdure of diſtinct Plants. Suppoſe yet further, theſe riſing Fibres, or Threads of Wax to be condenſed and hardened by the cool Air of the Night, and continue in their proper Forms; and the next Day the ſofter Wax ſhould be forced up again, not only through theſe Cloths, but alſo through the Interſtices of theſe hardned Threads

Threads or Fibres: Here would be ſome plain Difference of the next Mould in which the growing Parts of this Plant would be caſt, in order to give it ſome further different Shapes. Suppoſe the Branches and Leaves to be formed this way; and when theſe are condenſed and hardened at Night, then further Efforts of ſtraining the Wax upward, might go on to repreſent in a rude manner ſome groſs Idea of Vegetation. But 'tis eaſier for the Sons of Men to ſtand and wonder, and adore God the Creator, than to imitate, or even to deſcribe his admirable Works. In the beſt of their Deſcriptions and their Imitations of this Divine Artifice, they do but chatter like *Hottentots*, and paint like *Goths* and *Vandals*.

SECT. IV.

Of the Nouriſhment and Growth of Animals.

LET us proceed in the next Place to ſurvey new Wonders. All the Animals of the Creation, as well as the Plants, have their Original Nouriſhment from theſe ſimple Materials, Earth and Water. For all the Animal Beings which do not live upon other Animals, or the Produce of them, take ſome of the Vegetables for their Food; and thus the Brutes of Prey are originally indebted to the Plants and Herbs, *i. e.* to the Earth for their Support, and their Drink is the watery Element. That *all Fleſh is Graſs*, is true in the literal

literal, as well as the metaphorical Senſe. Does the Lion eat the Fleſh of the Lamb? Doth the Lamb ſuck the Milk of the Ewe? But the Ewe is nouriſh'd by the Graſs of the Field. Does the Kite devour the Chicken, and the Chicken the little Caterpillars or Inſects of the Spring? But theſe Inſects are ever feeding on the tender Plants, and the green Products of the Ground. The Earth moiſtned with Water, is the common Nurſe of all. Even the Fiſhes of the Sea are nouriſhed with ſome green Vegetables that ſpring up there, or by preying on leſſer Fiſhes which feed on theſe Vegetables.

But let us give our Meditations a looſe on this entertaining Subject, and we ſhall find numerous Inſtances of Wonder in this Scene of Divine Contrivance.

1. What very different Animals are nouriſhed by the ſame vegetable Food! The ſelf-ſame Herbage or Fruits of the Earth by the Divine Laws of Nature and Providence, are converted into animated Bodies of very diſtinct Kinds. Could you imagine that half the Fowls of the Air, as different as they are, from the Crow to the Tit-mouſe, ſhould derive their Fleſh and Blood from the Productions of the ſame Tree, where the Swine watches under the Boughs of it and is nouriſhed by the Droppings of the Fruit? Nor need I ſtay to take notice what numerous Inſects find their Neſts and their Food all the Summer Seaſon from the ſame Apples or Apricots, Plums or Cherries, which feed Hogs and Crows, and a Hundred

ſmall

ſmall Birds. Would you think that the black and the brindled Kine, with the Horſes both grey and bay, ſhould clothe themſelves with their hairy Skins of ſo various Colours out of the ſame green Paſture where the Sheep feeds, and covers himſelf with his white and woolly Fleece? And at the ſame time the Gooſe is cropping part of the Graſs to nouriſh its own Fleſh, and to array itſelf with Down and Feathers. Strange and ſtupendous Texture of the Bodies of theſe Creatures, that ſhould convert the common green Herbage of the Field into their different Natures, and their more different Clothing! But this leads me to another Remark.

2. What exceeding great Diverſity is found in the ſeveral Parts, Limbs, and Coverings even of the ſame Creature? An animated Body is made up of Fleſh and Blood, Bones and Membranes, long hollow Tubes, with a Variety of Liquors contained in them, together with many Strings and Tendons, and a thouſand other Things which eſcape the naked Sight, and for which Anatomy has hardly found a Name: Yet the very ſame Food is by the wondrous Skill and Appointment of the God of Nature form'd into all theſe amazing Differences. Let us take an Ox to Pieces, and ſurvey the wondrous Compoſition. Beſides the Fleſh of this huge living Structure, and the Bones on which it is built, what Variety of tender Coats and Humors belong to that admirable Organ the Eye? How ſolid

and hard are the Teeth which grind the Food? How firm the general Ligaments that tie the Joints of that Creature together? what horny Hoofs are his Support, and with what different ſort of horny Weapons has Nature furniſh'd his Forehead? yet they are all fram'd of the ſame graſſy Materials: The Calf grazes upon the verdant Paſture, and all its Limbs and Powers grow up out of the Food to the Size and Firmneſs of an Ox. Can it be ſuppoſed, that all theſe Copuſcles, of which the ſeveral inward and outward Parts of the Brute are compoſed, are actually found in their different and proper Forms in the Vegetable Food? Does every Spire of Graſs actually contain the ſpecifick Parts of the Horn and the Hoof, the Teeth and the Tendons, the Glands and Membrances, the Humours and Coats of the Eye, the Liquids and Solids, with all their innumerable Varieties in their proper diſtinct Forms? This is a moſt unreaſonable Suppoſition and vain Philoſophy. No, 'tis the Wiſdom of the God of Nature that diſtributes this uniform * Food in the ſeveral Parts

* By the Word *Uniform* here I do not mean, that all the Parts of each Spire of Graſs, by which Animals are nouriſhed and increaſed, are perfectly ſimilar, any more than the Parts of Earth and Water, by which Vegetables are nouriſhed and grow, are all perfectly of one Shape and Size; but I believe it will be eaſily granted me, that the Parts of every Spire of Graſs are not various and multiform, as to anſwer all the various Parts of the Animal which are ſupported and increaſed by it, as well as the Fleſh and Limbs, *&c.* of different Animals. This will be yet

Parts of the Animal by his appointed Laws, and gives proper Nouriſhment to each of them.

Again, 3*dly*, If the Food of which one ſingle Animal partakes be never ſo various and different, yet the ſame Laws of Motion, which God has ordained in the animal World convert them all to the ſame Purpoſes of Nouriſhment for that Creature. Behold the little Bee gathering its Honey from a thouſand Flowers, and laying up the precious Store for its Winter Food. Mark how the Cow preys upon a Carcaſe, anon it crops a Cherry from the Tree; and both are changed into the Fleſh and Feathers of a Crow. Obſerve the Kine in the Meadows feeding on a hundred Varieties of Herbs and Flowers, yet all the different Parts of their Bodies are nouriſhed thereby in a proper manner: Every Flower in the Field is made uſe of to encreaſe the Fleſh of the Heifer, and to make Beef for Men: And out of all theſe Varieties there is a noble milky Juice flowing to the Udder which provides Nouriſhment for young Children.

So near akin is Man the Lord of the Creation, in Reſpect of his Body, to the Brutes that are his Slaves, that the very ſame Food will compoſe the Fleſh of both of them, and make them grow up to their appointed Stature. This is evident beyound doubt in daily

yet more evident, if we conſider that Nature turns all Food whatſoever into the uniform Subſtance of *Chyle*, before the Animal is nouriſhed by it, which ſhall be ſhewn immediately.

and everlaſting Experiments. The ſame Bread-Corn which we eat at our Tables will give rich Support to Sparrows and Pigeons, to the Turkey and the Duck, and all the Fowls of the Yard: The Mouſe ſteals it and feeds on it in his dark Retirements; while the Hog in the Sty, and the Horſe in the Manger, would be glad to partake. When the poor Cottager has nurſed up a Couple of Geeſe, the Fox ſeizes one of them for the ſupport of her Cubs, and perhaps the Table of the Landlord is furniſhed with the other to regale his Friends. Nor is it an uncommon thing to ſee the favourite Lap-dog fed out of the ſame Bowl of Milk which is prepared for the Heir of a wealthy Family, but which Nature had originally deſigned to nouriſh a Calf. The ſame milky Material will make Calves, Lap-dogs, and human Bodies.

How various are our Diſhes at an Entertainment? how has Luxury even tired itſelf in the Invention of Meats and Drinks in an exceſſive and endleſs Variety? Yet when they paſs into the common Boiler of the Stomach, and are carried thence thro' the Inteſtines, there is a white Juice ſtrained out of the ſtrange Mixture called *Chyle*, which from the lacteal Veſſels is conveyed into the Blood, and by the Laws of Nature is converted into the ſame crimſon Liquor. This being diſtributed thro' all the Body by the Arteries, is farther ſtrained again thro' proper Veſſels, and becomes the Spring of Nouriſhment to every different

ferent Part of the Animal. Thus the God of Nature has ordained, that how diverſe ſoever our Meats are, they ſhall firſt be reduced to a uniform milky Liquid, that by new Contrivances and divine Art, it may be again diverſify'd into Fleſh and Bones, Nerves and Membranes.

How conſpicuous, and yet how admirable are the Operations of divine Wiſdom in this ſingle Inſtance of Nouriſhment! But it is no wonder that a God who could create ſuch aſtoniſhing and exquiſite Pieces of Machinery as Plants and Animals, could preſcribe ſuch Laws to Matter and Motion as to nouriſh and preſerve the Individuals, as well as to propagate the Species thro' all Ages to the end of Time.

SECT. V.

An amuſing Digreſſion concerning the Changes of Matter.

PERHAPS it may not be amiſs to follow a Track of pleaſing Amuſement, which by a very eaſy and natural Inference ariſes fom the Subject in hand, and which was very happily repreſented in a late Converſation among ſome of the Great and the Wiſe. *Theron* a Man of Wealth and Figure, but unacquainted with philoſophick Science, ſat in the midſt of his Friends of both Sexes in a ſtately Room with rich variety of Furniture.

Among other Converſation *Theron* was complaining, that he had heard it often ſaid, *how much we are all indebted to the Country and the Plough*; but for his part he knew no Obligation that we had to that low Rank of Mankind, whoſe Life is taken up in the Fields, the Woods and the Meadows, but that they paid their Rents well, that the Gentlemen might live at their Eaſe. *Crito* was pleaſed to ſeize the Occaſion, and entertained the gay Audience with a ſurpriſing Lecture of Philoſophy.

Permit me, *Theron*, ſaid he, to be an Advocate for the Peaſant, and I can draw up a long Account of Particulars, for which you are indebted to the Field and the Foreſt, and to the Men that cultivate the Ground, and are ingaged in rural Buſineſs. Look around you on all the elegant Furniture of the Room, ſurvey your own Cloathing, caſt your Eyes on all the ſplended Array of *Therina*, and *Perſis*, and the other Ladies near them, and you will find, that except a few glittering Stones, and a little Gold and Silver which was dug out of the Bowels of the Earth, you can ſcarce ſee any thing that was not once growing green upon the Ground, thro' the various Labours of the Planter and the Plowman. Whence came the Floor you tread on, part whereof is inlaid with Wood of different Colours? Whence theſe fair Pannels of Wainſcot, and the Corniſh that encompaſſes and adorns the Room? Whence this lofty Roof of Cedar, and

and the carved Ornaments of it? Are they not all the Spoils of the Trees of the Foreſt? Were not theſe once the verdant Standards of the Grove or the Mountain? What are your Hangings of gay Tapeſtry? Are they not owing to the Fleece of the Sheep which borrowed their Nouriſhment from the Graſs of the Meadows? thus the Finery of your Parlor once was Graſs; and ſhould you favour me with a Turn into your Bed-Chamber, I could ſhew you that the Curtains and the Linen, and the coſtly Coverings where you take your nightly Repoſe was ſome Years ago all growing in the Field.

But I need not retire from the Room where we are ſeated to give you abundant Diſcoveries of this Truth. Is not the Hair of Camels a part of the Materials which compoſe thoſe rich Curtains which hang down by the Window, and the eaſy Chairs which accommodate your Friends? and if you think a little, you will find that Camels with their Hair were made of Graſs as well as the Sheep and their Wool. I confeſs the Chimney and the Coals, with the Implements of the Hearth, the Braſs and Iron, were dug out of the Ground from their Beds of different kinds, and you muſt go below the Surface of the Earth to fetch them: But what think you of thoſe nice Tables of *Moſaic* Work? They confeſs the Foreſt their Parent. What are the Books which lie in the Window, and the little Implements of Paper and Wax, Pens

and Wafers, which I preſume may be found in the Scritore? And may I not add to theſe, that Inch of Wax-Candle, which ſtands ready to ſeal a Letter, or perhaps to light a Pipe? You muſt grant they have all the ſame Original, they were once mere Vegetables. Paper and Books owe their Being to the Tattars of Linnen, which was woven of the Threads of Flax or Hemp: The Paſtboard Covers are compoſed of Paper, and the Leather is the Skin of the Calf that drew its Life and Suſtenance from the Meadows. The Pen that you write with was plucked from the Wings of the Gooſe, which lives upon the Graſs of the Common: The Inkhorn was borrowed from the Front of the grazing Ox; the Wafer is made of the Paſte of Bread-Corn; The Sealing-Wax is ſaid to be formed chiefly of the Gum of a Tree, and the Wax for the Candle is originally plundered from the Bee, who ſtole it out of a thouſand Flowers.

Permit me, Ladies, ſaid the Philoſopher, to mention your Dreſs: Too nice a Subject indeed for a Scholar to pretend any Skill in it: But I perſuade myſelf your Candor will not reſent my naming the rich Materials, ſince I leave thoſe more important Points, the Faſhion and the Air to be decided entirely by your ſuperior Skill. Shall I enquire then, who gave *Perſis* the ſilken Habit which ſhe wears; Did ſhe not borrow it from the Worm that ſpun thoſe ſhining Threads? And whence did the Worm borrow it but from the Leaves of the Mulbery-

Mulbery-Tree, which was planted and nouriſhed for this Purpoſe by the Country Swain? May I aſk again, how came *Therina* by thoſe Ornaments of fine Linen which ſhe is pleaſed to appear in, and the coſtly Lace of *Flanders* that ſurrounds it? Was it not all made of the Stalks of Flax that grew up in the Field like other Vegetables? And are not the fineſt of your Muſlins owing to the *Indian* Cotton-tree. Nor can you tell me *Theron*, one upper Garment you have, whether Coat, Cloak, or Night-Gown, from your Shoulders to your very Feet, as rich and as new as you think it, which the Sheep, or the poor Silk-worm had not worn before you. 'Tis certain the Beaver bore your Hat on his Skin: that ſoft Fur was his Covering before 'twas yours; and the Materials of your very Shoes, both the upper Part and the Soles of them, covered the Calf or the Heifer, before they were put on your Feet: all this was Graſs at firſt, for we have ſeen that all the Animal World owes its Being to Vegetables.

The Company ſeemed ſtrangely ſurprized, and thought they had been led into fairy Land; they imagined themſelves decoy'd into the midſt of Inchantments, while their Fancy roved thro' all the Transformations. Yet the Diſcourſe ſeemed to carry ſuch Evidence and Conviction with it, that tho' they retained their Wonder they could not with-hold their Aſſent.

When *Crito* had given them leave to muſe a little

a little he took up the Argument again. Give me leave, Madam, ſaid he to *Therina*, without Offence, to lead you into further Wonders. You have ſeen that the Furniture of the Place where we are, as well as the precious Attire inwhich you are dreſt, were lately the Production, and the Ornaments of the Foreſt, the Meadow or the Garden. But could you forgive me, Madam, if I ſhould attempt to perſuade you, that that beautiful Body of yours; thoſe Features, and thoſe Limbs, were once growing alſo in the Fields and the Meadows? I ſee, Lady, you are a little ſhocked and ſurprized at the Thought. I confeſs the Ideas and Sentiments of Philoſophy are not always ſo courtly and ſo favourable to human Nature as to be addreſt to the tender Sex: But pardon me, *Therina*, if I enquire, was not your Infancy nurſed with Milk and Bread-Corn? Have you not been fed with Wheat, though 'twas of the fineſt kind? And your Drink, what has it been but either the Infuſion of Barley, or the Juice of the Grape, or, for Variety, perhaps the Cyder-Grove has ſupplied you? The Fleſh with which you have been nouriſhed to ſuch a well-proportioned Stature belonged to four-footed Animals, or to the Fowls of the Air; and each of theſe have either been fed with Corn or Graſs: Whence then, Madam, has your own Body been ſupported, and what do you think 'tis made of?

But

But 'tis ſafer to transfer the Argument to myſelf. Theſe Limbs of mine, *Therina*, owe themſelves entirely to the animal or vegetable Food, to the Roots or the Stalks, to the Leaves or the Fruit of Plants, or to the Fleſh of brute Creatures which have paſt thro' my Mouth for theſe fifty Years, or the Mouths of my Parents before me: This Hand would have been worn to a mere Skeleton, my Arms had been dry Bones, and my Trunk and Ribs the Statue of Death, had they not all received perpetual Recruits from the Field. Theſe Lips which now addreſs you are of the ſame Materials, and they were once growing like the Graſs of the Earth. This very Fleſh which I call mine now, did belong to the Sheep or the Ox, before it was a Part of me; and it ſerved to cloath their Bones before it covered mine. You know, *Theron*, you are a Gentleman who delight in rural Sports when you reſide at your Country-Seat, and you love to feaſt on the Game that you have purſued. Did you ever ſuppoſe that any part of yourſelf was once hurried thro' the Air in the Breaſt of a frighted Partridge, which came before Night into our Net? Or that any Piece of you was ever driven thro' the Fields before the full-mouth'd Hounds, on the Legs of a hunted Hare, which was the next Day prepared for your Table? Had you ever ſo ſtrange a Thought as this is? And can you believe it now? Or upon a Survey of my Argument, Can you tell how to deny it? And what are

Hares,

Hares and Partridges made of but growing Herbage or ſhattered Corn?

'Tis true, you have ſometimes taſted of Fiſh, either from the Sea or the Rivers, but even theſe in their Original alſo are a ſort of Graſs; they have been fed partly by Seaweeds, and partly by leſſer Fiſh which they have devoured, whoſe prime and natural Nouriſhment was from ſome vegetable Matter in the watry World. In ſhort, Sir I am free to declare, that whether I have eaten Cheeſe or Butter, Bread or Milk; whether I have fed on the Ox or the Sheep, or the Fowls of the Air, or the Fiſh of the Sea, I am certain that this Body, and theſe Limbs of mine, even to my Teeth and Nails, and the Hairs of my Head, are all borrowed originally from the vegetable Creation. Every thing of me that is not a *thinking Power*, that is not *Mind* or *Spirit*, was once growing like Graſs on the Ground, or was made of the Roots which ſupported ſome green Herbage.

And now, *Theron*, what think you of all theſe Paradoxes? which of them do you cavil at? which leaves you room for Doubt or Queſtion? is not Philoſophy an entertaining Study, that teaches us our Original, and theſe aſtoniſhing Operations of divine Wiſdom and Providence? But it teaches us alſo to have humble Thoughts of ourſelves, and to remember whence we came.

Theron, to conclude the Diſcourſe, confeſt his Surprize and Conviction; he acknowledged

ledged the Juſtice of *Crito*'s whole Argument, gave him hearty Thanks for his inſtructive Lecture, and reſolved to remember theſe amazing Scenes of the Operations of Nature, and the adorable Wiſdom of God his Maker. Nor ſhall I ever forget, ſaid he, the ſtrange and unſuſpected Dependance of Man on all the meaner Parts of the Creation. I am convinced that *Pride was never made for Man*, when I ſee how much akin his Body is to the Fowls of the Air and Brutes of the Earth, And I think, ſaid he, I am more indebted to my Tenants than ever I could have imagined, nor will I caſt ſuch a ſcornful Eye again on the Graſier and the Farmer, ſince this Fleſh and Blood of mine, as well as the Furniture of my Houſe, and the Cloaths I wear, were once growing in the Fields or the Woods under their Care or Cultivation; and I find I am nearer akin to them, ſince this Self of mine, with all the Finery that covers it, was made originally of the ſame Materials with them and their coarſer Coverings.

SECT. VI.

The ſimilar Operations of Plants and Animals.

'TIS with Admiration and Pleaſure we take notice of the regular Actions of Animals, even in their earlieſt Hours of Life, before they can poſſibly be taught any thing by Remark or Imagination. Obſerve the young

young *Sparrows* in the Neſt, ſee how the little naked Creatures open their Mouths wide to their Dam, as tho' they were ſenſible of their Dependance on her Care for Food and Nouriſhment: But the *Chicken* juſt releaſed from the Priſon of the Shell, can pick up its Food with its own Bill, and therefore it doth not open its Mouth to beg Food of the Hen that hatched it. Yet the Chicken ſeems to ſhew its Dependance too, for when the firſt Danger appears, you ſee it run and fly to the Wing of its Dam for Protection; as tho' it knew, that tho' it could feed itſelf, yet it was not able to defend itſelf, but muſt truſt to better Security and a Parent's Wing. We admire theſe little Creatures and their remarkable Sagacity; we are ſurprized to find that they diſtinguiſh ſo happily, and purſue their proper Intereſt; that they are ſo ſoon acquainted with their Abilities and their Wants, and come to uſe their *Underſtanding* ſo very early; for 'tis evident, that the meer Faculty of *Senſe*, that is, the paſſive Reception of Images or Ideas, can never be ſufficient to account for theſe wondrous Imitations of Reaſon; *Senſe* has nothing to do but with the preſent Impreſſion, and includes no Reflection or Proſpect of the paſt or the future, no Contrivance of Means to an End, nor any Action in order to obtain it.

But what ſhall we ſay, or how ſhall we account for it, if we are told, there are Inſtances almoſt as admirable as theſe to be found in the vegetable World, where we never ſuſ-

pect

pect Senſe or Reaſon? The *Vine*, as tho' it were ſenſible of its own Weakneſs, thruſts forth its long Tendrils, which curl round the Branches of any ſtronger Tree that ſtands near, and thus it hangs its weighty Cluſters upon the Arms of the Elm that ſupport it. Nay, every Cluſter has a Tendril belongs to it, and if any ſtronger Twig of its own be within its Reach, it hangs itſelf there by this Tendril for ſupport. The *Hop* and the *Lupin*, or *French-Bean*, as tho' they knew they could not ſtand by themſelves, find another way to raiſe their Heads on high; they twine the whole Length of their Bodies round the Poles or the Rods which are planted near them; and thus their Growth and their Fruit are upheld from rotting upon the Ground. The *Ivy*, for the ſame Reaſon, but by another Contrivance, climbs up the Oak, and ſticks cloſe to its Sides: and the feeble Plant which we vulgarly call the *Creeper*, that can hardly raiſe itſelf three Foot high alone, thruſts out its Claws at proper Diſtances, fixes them faſt in the Neighbouring Wall or Building, and mounts by this Means to the Tops of higheſt Houſes. What Variety of Artifice is found here among theſe feeble Vegetables to ſupport themſelves!

Yet we believe theſe Plants have no *Underſtanding*, and Mankind are all agreed they have no ſuch thing as *Senſe* belonging to them; and we immediately recur to the Wiſdom of God the Creator, and aſcribe the Contrivance

and

and the Honour of it to him alone. It was he (we ſay) who gave the *Vine* its curling Tendrils, and the *Creeper* its hooky Claws: It was he inſtructed the one to bind itſelf with natural winding Cords to the Boughs of a ſtronger Tree, and he taught the other, as it were, to nail itſelf againſt the Wall. It was he ſhewed the *Ivy* to aſcend ſtraight up the Oak; and the *Hop* and the *Lupin*, in long ſpiral Lines, to twine round their proper Supporters.

Let us enquire now, What do we mean by ſuch Expreſſions as theſe? Truly nothing but this; that God formed the Natures of theſe Vegetables in ſuch a manner, as that by certain and appointed Rules of mechanical Motion, they ſhould grow up and move their Bodies and their Branches ſo, as to raiſe and to uphold themſelves and their Fruit. Thus the Wiſdom of God, the great Artificer, is glorified in the vegetable World.

And why ſhould we not give God the Creator the ſame Honour of his Wiſdom in the animal World alſo? Why may we not ſuppoſe that he has formed the Bodies of brute Creatures, and all their inward Springs of Motion, with ſuch exquiſitive Art, as even in their youngeſt Hours, without Reaſoning and without Imitation, to purſue thoſe Methods as regularly, which are neceſſary for their Life and their Defence, by the ſame Laws of Motion and the ſame unthinking Powers? This is Nature when God has appointed it. This

ſeems

ſeems to be the true Idea, and the cleareſt Explication of that obſcure Word, *Inſtinct.*

If we allow theſe young Animals to perform all their Affairs by their own Contrivance and Sagacity, why don't we aſcribe the ſame Sagacity and Artifice to *Vines* and *Ivy*, that we do to young *Sparrows* or *Chickens?* The Motions of the Plants are ſlower indeed, but as regular and rational as thoſe of the Animals; they ſhew as much Deſign and Contrivance, and are as neceſſary and proper to attain their End.

Beſides, if we imagine theſe little young Birds to practiſe their different Forms of Motion for their Nouriſhment or Defence by any Springs of Reaſon or Thought, Meaning or Deſign in themſelves, do we not aſcribe Underſtanding to them a little too ſoon, and confeſs their Knowledge is much ſuperior to our own, and their Reaſon of more early Growth? Do we not make *Men*, or rather *Angels*, of them, inſtead of *brute* Creatures? But if we ſuppoſe them to be acted by the peculiar Laws of animal Motion, which God the Creator by a long Foreſight has eſtabliſhed amongſt his Works, we give him the Honour of that early and ſuperior Reaſon, and we adore the Divine Artificer, *Pſal.* cxlv. 10. *All thy Works ſhall praiſe thee, O Lord.*

But we are loſt among theſe Wonders of thy Wiſdom, we are ignorant of thy divine and inimitable Contrivances. What ſhall we ſay to thee thou All-wiſe creating Power! Thy

Works ſurprize us; the Plants and the Brutes puzzle and confound our Reaſonings: We gaze at thy Workmanſhip with ſacred Amazement, thy Ways in the Kingdom of Nature are untraceable, and they Wonders paſt finding out.

SECT. VII.

Of the Principles of Action in Brutes and Men.

BUT what will ſome Readers ſay when they peruſe theſe Diſcourſes? Are *Plants* and *Brutes* ſo very near a-kin to each other, Creatures which we have always diſtinguiſhed into the *Senſible* and the *Senſeleſs?* Have Birds and Beaſts no more Perception or Feeling, Knowledge or Conſciouſneſs, Underſtanding or Will than the Herbs, the Trees and the Flowers? Is the Graſs of the Field as wiſe a Thing as the Animal which eats it? Excuſe me here, my Friends; I dare aſſert no ſuch Paradoxes. What if ſome of the early Actions of brute Creatures are merely the Effects of ſuch Machinery and Inſtinct as I before deſcribed? It does not follow thence that all the Actions and Operations of their Lives muſt be aſcribed to ſuch a mechanical Principle, Even in human Nature, where there is an undoubted Principle of Senſe and Reaſoning, there are ſome early Actions which ſeem to be the proper Effects of ſuch Inſtinct or Mechaniſm, and are owing to the wondrous divine

vine Artifice in the Contrivance of their animal Bodies, and not to any Exerciſe of their own reaſoning Powers. How doth the Infant hunt after the Breaſt, and take it into its Mouth, moving the Lips, Tongue and Palate in the moſt proper forms for ſucking in the Milk to nouriſh it? How does it readily ſhut the Eyes to cover them from any Danger near? How does it raiſe its Cries and Wailings aloud for help when it is hurt? Theſe are certainly the Effects of Inſtinct in their outward Members, as much as the Circulation of their Blood and Digeſtion of their Food in their Bowels and inward Parts.

'Tis certain there are ſeveral Operations in the Lives of brute Creatures which ſeem to be more perfect Imitations of Reaſon, and bid fairer for the real Effect of a reaſoning Principle within them than theſe early Actions which I have mentioned. What ſtrange Subtilty and Contrivance ſeem to be found in the Actions of Dogs and Foxes? What Artifices appear to be uſed both by Birds and Beaſts of Prey, in order to ſeize the Animals which were appointed for their Food, as well as in the weaker Creatures to avoid and eſcape the Devourer? How few are there of the Paſſions as well as the Appetites of human Nature, which are not found among ſeveral of the brute Creatures! What Reſentment and Rage do they diſcover? What Jealouſy and Fear, what Hope and Deſire, what wondrous Inſtances of Love and Joy, of Gratitude and Revenge? What amazing Ap-

pearances of this Nature are obſerved in Birds and Beaſts of the more docile and domeſtick kind, that they utterly puzzle and poſe the wiſeſt of Philoſophers to give a plain, fair and ſatisfactory Account how all theſe Things can be perform'd by Mechaniſm, or the meer Laws of Matter and Motion? I confeſs it is impoſſible for us to determine with any Certainty how far the Powers of Mechaniſm can go, when under the Direction of infinite Wiſdom in the orignal Formation of theſe Engines: And how far certain general Laws of animal Motion may be at firſt appointed by God the Creator which may reach to perform all the viſible Appearance in the brutal Creation for ſix thouſand Years together. But if this be Machinery contrived by an all-pervading Mind, it is certain that it is not to be explained by all the preſent Sciences and Reaſonings of Men.

I confeſs alſo on the other hand I am not very fond of allowing to Brutes ſuch an immaterial Soul, ſuch a thinking and reaſoning Power, which in its own Nature muſt carry Immortality with it. Every Emmet upon a Mole-Hill, and every Bee in a Swarm lays as juſt a Claim to ſuch a Spirit as an Ox or an Elephant. The amazing Inſtances of appearing Sagacity and Reaſoning, Deſign and Choice, which diſcover themſelves in theſe little Creatures make as good Pretence to ſuch a Sublime Principle of Conſciouſneſs, Judgment and Liberty. And why may not the Millions of Mites in a Cheeſe, and the Nations

tions of other Animalcules which ſwarm inviſible to the naked Eye, be entitled to the ſame reaſoning Powers or Spirits, ſince their Motions, ſo far as Glaſſes diſcover them, are as hapily ſuited to the Ends of animal Life? 'Tis difficult to bring ones ſelf to believe that an immaterial Spirit is prepared for each of theſe minute Creatures ſo ſoon as their Body is form'd, and that at the Death of the Body it ceaſes to exiſt, or that it paſſes by Divine Appointment from one Animal to another, by certain unknown Laws of Tranſmigration.

The late Biſhop *Burnet*, who was no indiligent Enquirer into various Knowledge, ſeems to determine in his *Expoſition* of the *firſt Article* of the Church of *England*, *Ed.* 3. *Page* 34. that one of theſe two Opinions is now the Reſult of the Thoughts of the Learned *(viz.)* that either Brutes are meer Machines, or that they have reaſonable Souls. *It is certain*, ſays he, *that either Beaſts have no Thought or Liberty at all, and are only Pieces of finely organized Matter, capable of many ſubtile Motions that come to them from Objects without them; but that they have no Senſation nor Thought at all about them*; *or*, — But he ſuppoſes, that *human Nature can hardly receive or bear this Notion, becauſe there are ſuch evident Indications of even high Degrees of Reaſon among the Beaſts*; he concludes therefore, *It is more reaſonable to imagine, that there may be Spirits of a lower Order in Beaſts, that have in them a Capacity of thinking and chuſing; but that it is ſo entirely*

under the Impreſſions of Matter, that they are not capable of that Largeneſs either of Thought or Liberty, that is neceſſary to make them capable of Good or Evil, of Rewards and Puniſhments; and that therefore they may be perpetually rolling about from one Body to another, i. e. by perpetual Tranſmigrations from Body to Body.

It is far beyond all my Skill in Philoſophy to adjuſt and determine theſe Differences, and to decide this Queſtion. Sometimes I think 'tis hard to allow even *Senſation* to Brutes, or to imagine that their Creator, who is perfect Equity and Goodneſs, ſhould expoſe Creatures, who are innocent and could never ſin, to ſuch a Life of intenſe Toil, Anguiſh and Miſery, and to ſuch cruel Deaths as ſome of them ſuſtain. At other Times I can hardly avoid aſcribing *Reaſon* to them, when I obſerve ſo many Signatures of all the violent and the tender Paſſions, both in their Motions, their Eyes, and their Countenance, and ſo many Appearances of Thought, Contrivance and Deſign. Every Ant and Worm puzzles my Reaſonings, and baffles all my Science.

But on which Side ſoever this Queſtion be determined, I deſire to lay down this Bar or Caution againſt the Inference that *Atheiſts* or *Materialiſts* would make on this Subject; and that is, that how many Actions ſoever may be performed by Brute Creatures, without any Principle of Senſe or Conſciouſneſs, Reaſon or Reflexion, yet theſe things can never be applied to human Nature. It can never be ſaid, that

Man

Man may be an Engine too, that Man may be only a finer ſort of Machine, without a rational and immortal Spirit. And the Reaſon is this. Each of us feel and are conſcious within our ſelves, that we think, that we reaſon, that we reflect, that we contrive and deſign, that we judge and chuſe with Freedom, and determine our own Actions: We can have no ſtronger Principle of Aſſent to any thing than preſent, immediate, intellectual Conſciouſneſs. If I am aſſured of the Truth of any Inference whatſoever, 'tis becauſe I am ſure of my Conſciouſneſs of the Premiſes, and of my Conſciouſneſs that I derive this Inference from them. My Conſciouſneſs of theſe Premiſes therefore is a prior Ground of Aſſurance, and the Foundation of all my Certainty of the Inferences. Let a thouſand Reaſons therefore be laid before me, to prove that I am nothing but an Engine, my own inward preſent Conſciouſneſs of this Propoſition, that I have Thoughts, that I have reaſoning Powers, and that I have a Will and free Choice, is a full Evidence to me that theſe are falſe Reaſonings, and deceitful Arguments: I know and am aſſured, by what I feel every Moment, that I have a Spirit within me capable of knowing God, and of honouring and diſhonouring my Maker, of chuſing Good or Evil, of practiſing Vice or Virtue; and that I hereby am bound to approve myſelf to the Almighty Being that made and governs me, who will reward me in ſome future State or other, according to my Behaviour in this.

And as I can certainly determine this Truth, with Regard to my own Nature, ſo when I ſee Creatures round about me of the very ſame Species with myſelf, I juſtly infer the ſame Truth concerning them alſo; I conclude with Aſſurance, that they are not meer Engines, but have ſuch reaſonable and immortal Spirits in them, as I find in myſelf. 'Tis this Inference of ſimilar and equal Cauſes from ſimilar and equal Effects that makes a great Part of the Science of Mankind.

Beſides, I daily hear Men diſcourſing with me on any Subject, and giving as regular and reaſonable Anſwers to my Enquiries, as I do to theirs; I feel within myſelf, 'tis impoſſible for me to do this without thinking, without the careful Exerciſe of my intellectual and reaſoning Faculties ſuperior to all the Powers of Mechaniſm; and thence I infer 'tis as impoſſible for them to practiſe the ſame Diſcourſe or Converſation, without the Powers of a rational and intelligent Spirit, which in its own Nature is neither material nor mortal.

Let the Queſtion therefore which relates to Brute Creatures be determined to any Side, it does not at all affect the Nature, the Reaſon, or the Religion of Mankind. 'Tis beyond all doubt that Man is a Creature which has an intelligent Mind to govern the Machine of his Body, that Man has Knowledge, and Judgment, and free Choice; and unleſs he approve his Conduct to the Eyes of his Creator and his Judge in this State of Mortality and Trial, he

expoſes himſelf to the juſt Vengeance of God in his future and immortal State.

'Tis certain, that the All-wiſe and All-righteous Governour of intelligent Creatures, will not appoint the very ſame Fate and Period to the Pious and the Profane; neither his Wiſdom, his Equity, nor his Goodneſs, will ſuffer him to deal out the ſame Bleſſings and the ſame Events in every State of Exiſtence, to thoſe who have loved him with all their Souls, and thoſe who have hated and blaſphemed his Name. It is the Glory and the Intereſt of the ſupreme Ruler of the Univerſe, to make a conſpicuous and awful Diſtinction in one World or another, between thoſe who have endeavoured to ſerve him, and to render his Majeſty honourable among Men, and thoſe who have impiouſly abuſed all his Favours, ridicul'd his Thunder, and robb'd him of his choiceſt Honours. But if Philoſophy ſhould fail us here, if it were poſſible for Creatures of ſuch different Characters to have nothing in their own Natures which was immortal, yet 'tis a very reaſonable thing, that the great Judge of all ſhould prolong their Beings beyond this mortal State, that the Sons of Vice might not go triumphant off the Stage of Exiſtence. and that the Men of Virtue might not be always oppreſt, nor come to a Period of their Being, without ſome Teſtimony of the Approbation of the God that made them.

ESSAY

ESSAY X.

Of Sun-Beams and Star-Beams.

SECT. I.

Is the Ether *beyond our Atmoſphere a meer Vacuity?*

Anſw. NO; by no means: For there is not one minute Spot in all the ſolar Syſtem, where the Pupil of an Eye might not be placed, and ſee a Hemiſphere of Stars. Suppoſe the viſible Stars to be no more in Number than the Ancients counted them: *viz.* a thouſand and twenty-ſix, or for the ſake of a round Number, one thouſand only; yet the other Stars viſible to the naked Eye, together with thoſe which are viſible by a Teleſcope, would amount at leaſt to many thouſand more. Suppoſe between the leaſt of theſe Teleſcopical Stars, and the viſible Stars of the firſt Magnitude, the apparent Difference be no greater than that of one to a hundred: Suppoſe again, that

that from the leaſt of theſe Stars but one ſingle Ray came to one Eye, then from the biggeſt Star there muſt proceed a hundred Rays: This would multiply the Rays of all the Stars in a Hemiſphere, which came to each Eye with ſenſible Notice, by the Aſſiſtance of a Teleſcope, at leaſt to a hundred thouſand, without ſtanding to make a nice Computation. What Millions of Millions of Star-Beams then muſt be for ever paſſing through the ethereal Space, to be able to meet every Eye placed in any Part of this vaſt Sphere of our World, if there be not a Spot upon it ſo big as the Pupil of an Eye, but muſt admit of ſo many thouſand Beams? What infinite Rencounters and Decuſſations, Meetings and Croſſings through all the Parts of our ſolar Syſtem?

Next, let us ſuppoſe each of theſe Pupils were turned inward toward the Sun: each will meet with a far greater Number of Beams of Light from the Sun, in ſuch a Proportion as the full Blaze of Day is ſuperior to the glimmering Light of the Star-Beams. The vaſt addition of Rays from the Sun does almoſt infinitely increaſe the Rencounters and Decuſſations: Sun-Beams and Star-Beams, ever meeting in innumerable Myriads throughout the Ether of our ſolar World; ſince we have allow'd that there is not a Spot in it whence a Hemiſphere of Stars might not be ſeen by Night, and whence alſo we may not ſee a Hemiſphere of blazing Day-Light.

Let

Let it be remembred alſo, that theſe Motions of the Particles of Light both from the Sun and Stars, are and have been inceſſant ever ſince the Creation, both by Night and Day: For our Night and Day are only diſtinguiſh'd by the little Globe of our Earth turning its different Sides toward the Sun, which is an inconſiderable thing in the vaſt ſolar World, or planetary Syſtem. The Reaſon why we do not diſcern the Stars by Day, being only the ſuperior Quantity and Force of the Sun-Beams ſtriking the Eye, whereas the Star-Beams ſtrike alſo conſtantly, but ſo feebly, as not to be noticed: And the Reaſon why we do not ſee the Sun by Night, being the Interpoſition of the Earth, and the Sun-Beams that go beſide the Earth, fly from our Eyes, and not toward them: But the ſame Quantity of Sun and Star-Beams are perpetually flowing through the Ether in every minute Part of it, except only thoſe few Places where the Planets or their Satellites intercept them, and ſtop their Motion.

Now the Corollaries that may be drawn from theſe Suppoſitions are,

1. That ſince Light is a Body, which has been ſufficiently proved by its Reflexions and Refractions, *&c.* the Ether is not ſo void a Space as perhaps ſome have been ready to imagine, ſince there is not a minute Spot in it, wherein there are not many thouſand Bodies always moving with prodigious Swiftneſs all manner of Ways. And it may be enquired whether

whether the Planets moving through ſuch a Fluid, would not by Degrees be retarded in their Courſes; but the next Corollary perhaps may anſwer it.

2. How amazing muſt be the Subtilty and Smallneſs of the Rays, which have been ſhooting from the Sun and Stars for almoſt ſix thouſand Years, and yet no ſenſible Addition is made to the Bulk of our Globe where they ſeem to be all loſt, nor any ſenſible Diminution of the Sun or Stars whence they all proceed? And if theſe Corpuſcles which compoſe this wondrous Thing called *Light*, are ſo inconceivably ſmall, and the Body be ſo rare, perhaps the Planets may paſs through it without ſenſible Retardation. And yet Dr. *E. Halley* has told us in *Miſcellanea Curioſa*, p. 59. he thinks he can demonſtrate, that the Oppoſition of the Ether to the Motion of the Planets in long time becomes ſenſible.

3. What a ſurprizing Work of God is Viſion, that notwithſtanding all theſe infinite Meetings and Croſſings of Star-Beams and Sun-Beams Night and Day, through all our ſolar World, there ſhould be ſuch a regular Conveyance of Light to every Eye, as to diſcern each Star ſo diſtinctly by Night, as well as all other Objects on Earth by Day? And this Difficulty and Wonder will be greatly increaſed by conſidering the innumerable double, treble, and tenfold Reflections and Refractions of Sun-Beams or Day Light near our Earth, and among the various Bodies on the Surface

Surface of it. Let ten thouſand Men ſtand round a large elevated Amphitheatre; in the Middle of it, on a black Plain, let ten thouſand white round Plates be placed, of two Inches Diameter, and at two Inches Diſtance; every Eye muſt receive many Rays of Light reflected from every Plate, in order to perceive its Shape and Colour. Now if there were but one Ray of Light came from each Plate, here would be ten thouſand Rays falling on every ſingle Eye, which would make twenty Thouſand times ten Thouſand, that is two hundred Millions of Rays croſſing each other in direct Lines, in order to make every Plate viſible to every Man. But if we ſuppoſe that each Plate reflected one hundred Rays, which is no unreaſonable Suppoſition, this would riſe to twenty thouſand Millions. What an amazing thing is the diſtinct Viſion of the Shape and Colour of each Plate by every Eye, notwithſtanding theſe confuſed Croſſings of Rays? What an aſtoniſhing Compoſition is the Eye in all the Coats and all the Humours of it, to convey thoſe ten Thouſand white Images, or thoſe Millions of Rays ſo diſtinct to the *Retina*, and to empreſs or paint them all there? And what further Amazement attends us, if we follow the Image on the *Retina*, conveying itſelf by the optick Nerves into the common Senſory without Confuſion? Can a rational Being ſurvey this Scene, and ſay there is no God? Can a Mind think on this ſtupendous

pendous bodily Organ, *the Eye*, and not adore the Wiſdom that contrived it?

SECT. II.

Doth the World grow bigger or leſs?

LET us ſuppoſe, according to modern Philoſophy, that the Univerſe is a vaſtly larger Extent and Compaſs, than ever our Anceſtors imagined, and that each of the innumerable Multitude of Stars is a Sun to ſome Syſtem of Planetary Worlds, which are continually rolling round it: Yet I now take it for granted, that the Number of theſe Stars is not actually Infinite: For the Number of the Star-Beams would then be almoſt infinitely greater than Infinite; beſides other Abſurdities, which I think would follow from the ſuppoſed Infinity of the Univerſe. We will determine therefore at preſent, without further Debate, that it muſt have ſome Limit: Now this Limit, muſt be either ſome hard and capacious Body including the whole World, as in a Box or a hollow Sphere, reſtraining the Particles of Light from a further Progreſs, or elſe it muſt be the actual Agency of the Power of God, confining the utmoſt Star-Beams in their Flight, and ſaying, *Hitherto ſhall ye go and no farther.*

The Reaſon I give for it is this, (*viz.*) If a Star-Beam, or the Light of one of the outermoſt Stars continues its Motion in a direct Line

Line from the Star to the preſent Limit of the Univerſe, and be not powerfully ſtopp'd and confin'd there by ſome ſolid Body, or the Almighty Will of God, it will move onward infinitely in the void Space in a direct Line, according to the firſt Law of Motion, *(viz.)* That a Body moving will ever move in a direct Line, onward, unleſs ſome other Being divert or reſtrain it. Thus the Univerſe would be for ever enlarging its Bounds, as the Light proceeds further in its Progreſs, and gains upon the void Space: The World would be for ever growing and encreaſing its Extent without End. And what is ſaid here concerning one Star, may be aſſerted concerning our Sun and every Star, and the greateſt part of the Rays they ſend forth.

And if Light move ſo ſwiftly, as to paſs through one hundred and fourſcore thouſand Miles in the Second of a Minute, as modern Philoſophy aſſerts, with what a prodigious Speed muſt this World increaſe its Extent, and be for ever increaſing it?

Now if theſe Star-Beams have been moveing thro' the infinite Void with ſuch an aſtoniſhing Swiftneſs, ever ſince the World has been created, *i. e.* at the Rate of one hundred and fourſcore thouſand Miles in the Second of a Minute, what prodigious Expanſion has the Univerſe arrived at, if according to *Moſes*, we count the beginning of all Things to have been but ſix thouſand Years ago? But if the *Moſaick* Hiſtory of the Creation has regard only

only to our Earth, or to the planetary Syſtem of our Sun, then, for ought we know, the Univerſe might be created ſixty thouſand or ſix hundred thouſand Years ago; and how amazingly muſt it be dilated by ſuch a Suppoſition, yet continually enlarging its Bounds, and gaining upon the boundleſs *Void?*

As the Univerſe upon this Suppoſition will be for ever inlarging its Limits, ſo it will be for ever diminiſhing its ſolid Subſtance, till in time the lucid Bodies are in a great Meaſure waſted away, or at leaſt till the luminous Atoms are all fled away and gone: And then, not only the Planets, but whatſoever more of ſolid Matter remains in the Stars, alſo will be buried in eternal Darkneſs: And if the World had been eternal, as ſome Perſons have imagined it, it muſt have been long ago reduced by this means to univerſal Midnight and Deſolation.

I can think but of one Objection to be raiſed againſt this way of Reaſoning, and that is, that Gravitation toward the Stars or their Planets, would with-hold theſe Atoms of Light, theſe luminous Rays, from ſuch a prodigious and eternal Excurſion into the infinite *Void.*

But may it not be anſwered, that ſince Gravitation could not ſo reſtrain the Motion of theſe bright Atoms, theſe Stars-Beams when they were much nearer to the Star and its Planetary Worlds, but that Light when 'twas emitted from the Star, fled with ſuch a prodigious Swiftneſs, even to ſo vaſt a Diſtance,

can it be ſuppoſed, that Gravitation will have ſo much Influence as to ſtop its Motion, when it is arrived at this vaſt Diſtance from the Star, and all its Planets?

Yet after all, I know it may be reply'd again, that Gravitation is a Power which is not limited in its Agency by any conceivable Diſtances whatſoever; and therefore when theſe Star-Beams are run out never ſo far into the infinite Void by the Force of their firſt Emiſſion from the Star, yet their Gravitation towards the Star (or ſome of the Planetary Worlds, which ſometimes perhaps may be nearer to it) has perpetual Influence to retard their Motion by degrees; even as the Motion of a Comet is retarded by its Gravitation towards the Sun, tho' it flies to ſuch a prodigious Diſtance from the Sun; and in time 'tis ſtop'd and drawn back again and made to return towards its Center. And juſt ſo may we ſuppoſe all the Sun-Beams and Star-Beams that ever were emitted, even to the Borders of the Creation, to have been reſtrained by Degrees by this Principle of Gravitation, till moving ſlower and ſlower, at laſt they are ſtop'd in their Progreſs, and made to return towards their own or ſome other Planetary Syſtem. And if ſo, then there is a perpetual Return of the Beams of Light towards ſome or other of their bright Originals, an everlaſting Circulation of theſe lucid Atoms, which will hinder this eternal Dilation of the Bounds of the Univerſe, and at the ſame time will

equall

equally prevent the waſting of the Subſtance of the lucid Bodies, the Sun or Stars.

Well, but if this Power of reſtraining and reducing the Flight of Star-Beams be aſcribed to this Principle of Gravitation, let us enquire what is this *Gravitation*, which prevents the Univerſe from ſuch a perpetual Waſte of Light? It cannot be ſuppoſed to be any real Property or natural Power inhering in Matter or Body, which exerts its Influence at ſo prodigious a Diſtance. I think therefore 'tis generally agreed, and with great Reaſon, that it is properly the Influence of a divine Power upon every Atom of Matter, which in a moſt exact proportion to its Bulk and Diſtance, cauſes it to gravitate towards all other material Beings, and which makes all the bulky Beings in the Univerſe, *(viz.)* the Sun, Planets and Stars attract the Bodies that are near them towards themſelves. Now this Law of Nature being ſettled at firſt by God the Creator, and being conſtantly maintained in the Courſe of his Providence, it is eſteemed as an Effect of Nature, and as a Property of Matter, tho' in Truth it is owing to the Almighty and All-pervading Power of God exerting its inceſſant Dominion and Influence through the whole material Creation, producing an infinite Variety of Changes which we obſerve among Bodies, confining the Univerſe of its appointed Limits, reſtraining the ſwift Motion of the Beams of Light, and preſerving this vaſt Syſtem of Beings from

Waſte and Ruin, from Deſolation and Darkneſs. If there be a World there is a God: If there be a Sun or Stars, every Ray points to their Creator; not a Beam of Light from all the lucid Globes, but acknowledges its Miſſion from the Wiſdom and Will of God, and feels the Reſtraint of his Laws, that it may not be an eternal Wanderer.

But I call my Thoughts to retire from theſe extravagant Rovings, beyond the Limits of Creation. What do theſe Amuſements teach us, but the inconceivable Grandeur, Extent and Magnificence of the Works and the Power of God, the aſtoniſhing Contrivances of his Wiſdom, and the Poverty, the Weakneſs and Narrowneſs of our own Underſtandings, all which are Leſſons well becoming a Creature?

ESSAY XI.

On ſome Metaphyſical Subjects.

SECT. I.

*Of Nature and Eſſence.**

THE *Nature* or *Eſſence* of any Being conſiſts in a Union of all thoſe Things, whether Subſtances, or Modes and Properties, which are neceſſary to make that Thing be what it is. So it is the Nature of a *Triangle* to have three Lines ſo joined as to make three Angles; and the Nature of a *Spirit* to be a thinking ſelf-ſubſiſting Being; even as extended ſolid Subſtance is the Nature of Body: 'Tis the *Nature* or *Eſſence* of a Grove to be a Spot of Ground thick ſet with Trees, and the Nature of *Man* to be a Spirit united to an Animal of ſuch a particular Shape; and 'tis the Eſſence or Nature of a *Roſe*, to be a Flower whoſe Leaves

* *Note*, This Eſſay is little more than an Amplification of the ſecond Chapter of the following Sketch of *Ontology*, written when the Author had ſome Thoughts of compoſing a larger Syſtem of that Science.

are of ſuch a ſpecial Figure and ſuch a beautiful faint reddiſh Colour, with ſuch a peculiar Smell as are all united in the Plant to which we give that Name.

The Nature of a Thing, by Philoſophers, is called its *Eſſence:* and a Thing may be ſaid to have an Eſſence, or Nature, when it is not actually in Being, if the Mind of Man can clearly conceive it as poſſible to be; ſo an *Engliſh Roſe* in *January*, *Snow* in *Guinea*, or an *innocent Man* on *Earth*, may be ſaid to have an Eſſence among the Nature of Things, tho' perhaps there are not ſuch Things actually in Being.

Note, The Eſſence of *mathematical Beings*, which are but a ſort of abſtract Ideas, are eternal and immutable, and may be ſaid in the Language of the Schools to conſiſt in an indiviſible Point; for if a *Square*, a *Triangle*, or a *Circle*, want the leaſt Part, or Degree, of its Perfection, it fails of ſome of the Properties of that Figure, it loſes its Nature, and ceaſes to be that Figure.

But the Eſſences of *natural Beings*, as well as *artificial* or *moral*, are not ſo immutable as Philoſophers have formerly thought 'em; nor do they conſiſt in an indiviſible Point; for natural Beings are not ranged by God or Man into diſtinct *Species*, or *Kinds*, ſo very exactly, that if any of the Ideas which go to compoſe the Eſſence of any particular kind of Being be never ſo little varied by Addition, Diminution,

nution, or Alteration, it deſtroys that *Kind*, and makes it ſomething elſe.

Ancient ſcholaſtick Writers indeed were almoſt univerſally agreed, that all *natural* Beings are thus exactly diſtributed into diſtinct *Species*, and that each hath its own indiviſible and unchangeable Eſſence: But in our Age we are taught to philoſophize with more Caution on this Subject; and that great Genius Mr. *Locke* has done much toward teaching us. We uſe the Word *Species*, to ſignify a Rank of Beings, in each of which we find a Collection of thoſe Ideas united, which we call its *Nature* or *Eſſence*, and which we uſually join together under one Name, and make that ſtand for the Name of a *Species*; ſo we call one Set of Creatures *Men*, another *Monkeys*; ſome are named *Beaſts* and others *Birds*; this Metal is *Gold*, that is *Silver*, and the other is *Lead*, according to the different Ideas which we have joined together to make up each of theſe *Species* or Kinds in our way of Thinking and Speaking.

Now in many Things it is evident, that by dropping or diminiſhing ſome of thoſe Ideas which are uſually called *eſſential*, and by adding or altering others, there may be a conſiderable Change made in ſome individual Being, and yet we range it ſtill in the ſame *Species*, and give it the ſame Name. We uſually ſuppoſe *four Feet and a Tail, and a Power of barking*, to be eſſential to a *Dog*; but ſuppoſe *a Dog had ne'er a Tale, or a Tongue*, do we

not call it a *Dog* ſtill? Or if the Beaſt ſhould be a little monſtrous and ſhould have *five Feet*, would it ceaſe to be a *Dog*?

But if theſe Ideas which we uſually call *eſſential* ſhould be very greatly changed, thence there would ariſe ſo great a Variation from what we call *one kind* of Beings, and ſuch an Approximation towards *another*, that it may ſometimes be very hard to know under what Kind or *Species* to rank the Being in Queſtion, and what general Name to give it. This is very eaſy to conceive in Things *moral* or *artificial* (1.) in moral Ideas: The Will of a Parent may be manifeſted to a Son in ſuch ſoft and perſuaſive ſort of Language, that 'tis hard to ſay whether it muſt be called a *Counſel* or a *Command*. A voluntary Action may have ſo many Circumſtances in it both good and bad, that it may be a difficulty to determine whether 'tis virtuous, or vicious, lawful or unlawful. (2.) In Things Artificial: A *Hat* and a *Cap* are different kinds of Coverings for the Head: A *Hat* has brims all round; a *Cap* has not: Yet the Brims of the *Hat* may be ſo leſſened by degrees, or cut into ſuch a Shape, that you would not know whether to call it a *Cap* or a *Hat*. The ſame gradual Change may be made in a *Chair* or *Stool*, by leſſening or enlarging the Back of it. And ſo in a *Garden* or *Orchard*, by multiplying or diminiſhing the Number of Fruit-trees.

And why may we not ſuppoſe that Natural Beings are in ſome Meaſure, at leaſt, left under

under the ſame ſort of Uncertainty? A Tincture of *Gambogia* is yellow: add a ſmall Tincture of *Ultramarine* to it, and it becomes doubtful whether it is yellow or green: Put in ſeveral more Degrees of *Ultramarine*, ſo as to overwhelm the *Gambogia*, and the yellow is quite loſt; 'tis a Doubt then whether it be green or blue. The Gold of *Africa* and that of the *Eaſt-Indies* uſually differ in their Colour, one being more ruddy than the other: perhaps a few more Degrees of *Redneſs* with a ſmall Alteration of the Weight, might make a Chymiſt doubt whether it were Gold or no. *Silver* and *baſer Metal* are ſometimes ſo intermingled in the Mines, that 'tis hard to ſay whether this Clod be *true Silver* Oar. So by different Graftings and artful Unions of different kinds of Trees, the Fruit thereof may ſo much change its Qualities, as to be ranked under a new kind, whether of Pears or Apples, *&c.* Nor are Inſtances wanting amongſt animal Beings: A Creature may be born ſo monſtrous, with ſo many Parts or Properties like a Man, and ſo many like a Monkey, that we may be at a loſs whether to call it a *Monkey* or a *Man*: and much more may ſuch a Thing happen in the Species of *Horſes* and *Aſſes*, *Dogs* and *Foxes*: and there is a Creature which we call a *Batt*, which we doubt whether to place among the Species of *Birds* or *Beaſts*.

Yet it muſt be granted, that *natural Beings* which are the Works of God, have, or ſeem

to

to have ſomething more of a regular and conſtant Limitation of their Eſſences than moral or artificial Beings which are the Works of Man. God the Creator in the Courſe of his Providence generally keeps up the ſucceſſive Production of natural Beings, whether Meteors, Metals, Plants or Animals, in ſuch a regular Uniformity, as to eſtabliſh and maintain ſuch conſtant and real Boundaries of their different *Species*, as are ſufficient for all the Uſes of the natural World, and for the Purpoſes of human Life; and therefore in all ordinary Caſes we may ſay that God has given Boundaries to the different *Species* of natural Things; but the Hints which have here been given, do alſo ſufficiently prove the Falſhood of that Axiom of the Schools, *(viz.) That all Natures or Eſſences of Things are unchangeable*, or *that they conſiſt in an indiviſible Point*, and that other Axiom alſo, that *in Eſſences there are no Degrees*. See what is written on this Subject in *Logick*, *Part* 1*ſt*, *Chap.* 6. *Sect.* 6. And Mr. *Locke* has diſcourſed on this Subject very copiouſly, in his Treatiſe of the *Human Underſtanding*, *Book* III. *Chap* 3, 4, 5 and 6. where he ſeems to make the ranging of all Beings into different Species, to be only the Work of the Mind of Man, and that the Eſſences of all Things, as we diſtinguiſh them, are meer *nominal Eſſences*. So far as I can recollect his Sentiments, he ſcarce allows any more real and eſtabliſh'd Bounds of Diſtinction between the Eſſences of different kinds of *natural* Beings which

which God has made, (*viz.*) Lions, Snakes, Apples, Roſes or Sun-Beams, than there are between the Eſſences of *moral* Beings, or Ideas, which the Minds of Men form, ſuch as Murther, Theft, Idolatry, Government, or the *Artificial* Beings which their Hands produce, ſuch as Houſes, Pins, and Paper. Whether ſome of his Expreſſions on this Subject be not a little too ſtrong, let the Learned enquire and determine, ſince 'tis granted, that the Eſſences and Species of natural Beings are generally kept ſufficiently diſtinct by the God of Nature.

SECT. II.

Of Matter and Form.

THE Nature of every *particular Body* conſiſts of *Matter and Form.* We need not change the Terms of the old Philoſophy, but there is great need of mending the Senſe of them.

The *Matter* of Body is the ſolid extended Subſtance of which it is made, which ſeems to be uniform, and the ſame in all Bodies. If the *Ariſtotelians* meant nothing elſe by their *Materia Prima*, they have dreſt up their Sentiments very odly.

The *Form* of each particular Body is the Combination either of thoſe primary and real Qualities, or of thoſe ſecondary and ſenſible Qualities, or of both together which belong to that Body, and make it be what it is: and thus

thus far we may agree with the Definition of the Schools, *Forma eſt id per quod res eſt id quod eſt.*

The primary or real Qualities are that particular Shape or Figure, and that Size or Quantity, with thoſe Degrees of Motion or Reſt, and that Situation, both of the ſenſible and imperceptible Parts of it, as is proper only to that kind of Body, and belongs to no other.

The ſecondary or ſenſible Qualities of a Body are its particular Colour, Taſte, Smell, Coldneſs, Heat, Hardneſs, *&c.* 'Tis from the different Modifications and Diſpoſitions of theſe primary Qualities, *(viz.) Shape*, *Motion*, *Quantity*, *Situation*, &c. that all the ſecondary or ſenſible Qualities ariſe, ſuch as *Colour*, *Taſte*, *Weight*, *Hardneſs*, &c. whereby we commonly diſtinguiſh moſt Bodies of different Kinds from one another.

In ſome Bodies indeed, any ſort of Matter with ſuch a particular and determined outward and viſible Shape and Size, is ſufficient to make up the Nature and Eſſence of them, or to make thoſe Bodies be what they are: As for inſtance, any ſort of ſolid extended Subſtance with a Figure every way round, is the *Matter and Form* of a *Ball* or *Globe*, without regard to its ſenſible Qualities of Colour, Hardneſs, *&c.* Any Building of whatſoever Materials, if it be framed and fitted for Men to dwell in, is called a *Houſe:* Any long Piece of Matter bent round like a Hoop, may be called a *Ring*, and any

any ſmall open hollow Veſſel to waſh our Hands in, may be called a *Baſon.*

In other Bodies there muſt be ſuch a particular inward Contexture of the Parts, that is, ſuch a peculiar Shape and Situation, and inteſtine Motion or Reſt of the ſmall inviſible and imperceptible Particles of Matter of which it is compoſed, to compleat the Nature of them and to give them thoſe ſenſible Qualities of *Colour*, *Hardneſs*, *&c.* and to make them be what they are. This is required in the Bodies which we call *Water*, *Quick-ſilver*, *Gold*, *Wood* or *Clay*; but it is no Matter what the outward and groſs Shape of them is, for that makes no Difference, nor belongs to the Nature of them.

But in other Bodies there muſt be both the outward viſible Figure, as well as the inward Shape, Situation, Reſt or Motion, and Fermentation of the imperceptible ſolid or fluid Parts to compoſe the Nature of it, or make it be what it is; this is evident in a *Gold Ring*, a *Rope*, an *Egg*: and the ſame is true of all *Plants* and *Animals*, as a Roſe, an Oak, a Horſe, an Eagle.

It is granted, that the ſharpeſt Underſtanding can penetrate but a very little way into the Natures of Eſſences of *natural* Beings and the ſpecial Forms of them, in the preſent State; we know and diſtinguiſh the Bodies that are round about us by the outward Figures and Sizes, and by their ſenſible Qualities, by their Effects upon our Senſes, and their ſenſible Operations upon one another, much more than we

do

do by any of the Figures or inteſtine Motions of thoſe little imperceptible Atoms and Particles of which they are compoſed, for theſe being inviſible to us for the moſt part, lie out of the Reach of our Knowledge. And therefore our Deſcription of natural Bodies is much more drawn from their ſenſible Qualities.

The *Matter* of which a Body is made, is either *proxime* or *remote*: the proxime Matter of which a *Houſe* is made, is *Bricks*, *Tiles* and *Mortar*, *Beams* and *Rafters*, *Boards* and *Nails*. The remote Matter is *Clay*, *Sand* and *Lyme*, *Trees* and *Iron*; and they are called remote, becauſe *Bricks* and *Tiles* are made of *Clay*, *Mortar* is made of *Sand* and *Lyme*; *Beams*, *Rafters* and *Planks* are cut out of *Trees*, and *Nails* are formed of *Iron*. The proxime Matter of a *Book*, is its *Leaves printed with Words, bound up in Covers*: but *Paper* and *Printer's Ink* are the remote Matter of it, together with *Paſtboard* and *Leather*.

Note, Matter and Form have been by the *Ariſtotelian* Philoſophers, generally ranked amongſt the *Cauſes*, and treated of there, but without any juſt Reaſon: Yet they may be juſtly called the *conſtituent Principles* of Things, tho' they are not proper *Cauſes*.

Note, Matter and Form are Words which have been transferr'd from corporeal Beings to ſeveral other Things which relate to the intellectual World, with ſome analogous or kindred Signification: the *Matter* of the Science of *Anatomy*, or that about which it converſes, is the

the *Body of Man:* The Form is a ſkilful Diſſection and Knowledge or Deſcription of the ſeveral Parts of the Body, their proper Figure, Situation and Deſign. The *Matter* of a *Sermon* is any Theme in Divinity, ſuppoſe it be the Worſhip of God, or Love to Man, the Evil of Sin, the Redemption of *Chriſt*, or the Glory of Heaven: The *Form* of the *Sermon* is that particular manner, both in regard to Senſe, Order and Style in which the Preacher treats of thoſe Subjects, whether it be in Propoſitions, Doctrines, Reaſons, Inferences; whether it be in a Way of Argument or Harangue; whether in rude or polite Language.

From the various Application of theſe Terms, *Matter* and *Form*, proceeds that old and famous Diſtinction of *material* and *formal*, which is uſefully applied to a thouſand various Subjects; thus the River of *Thames* is *formally, the ſame* as it was in our Grandfather's Days, becauſe it runs between the ſame Banks, but *materially* 'tis very *different*, for perhaps, there is not a Drop of the ſame Water. Thus *Dryden*'s and *Ogilby*'s *Virgil* are *materially the ſame*, becauſe they are *Engliſh* Tranſlations of the ſame *Latin* Poet; but conſidered *formally*, they are exceeding different, *i. e.* as to the Elegance of the Verſe.

SECT. III.

Of the different Senſes of the Word Nature.

HAving ſpoken of the Nature of particular Beings which conſiſts in a *Collection of thoſe Things which make it be what it is*, 'tis proper alſo to obſerve, that the Word *Nature* ſometimes is ſo limited, as to ſignify any one particular Attribute or Property of a Being, as it is the *Nature* of a *Dog* to bark, and of *Fire* to burn.

Sometimes 'tis ſo far enlarged, as to denote the whole World, or the Univerſe of Things; as when we ſpeak of a *Centaur* or *Griffon*, and ſay there is no ſuch Thing *in Nature*.

Sometimes alſo the Word *Nature* is taken for the neceſſary and eternal Order and Connection of Things in Idea, and the unchangeable Relations of them to each other. So we ſay, 'tis according to the *Nature* of Things, that *Creatures are mutable*, that *three and three make Six*; or that *two mathematical Circles can touch each other but in a Point*.

We call alſo thoſe *Laws*, which God the Creator has eſtabliſhed in the World for the Management of the grand Scheme of his Providence, by the Term of *Nature*; and indeed many times we do not enough diſtinguiſh them from the abſtracted Reaſon of Things, and their neceſſary and eternal *Relations*. In this Senſe we ſay 'tis *natural* for a Stone thrown up

to

to fall back towards the Earth again, for Cork to float in Water, and for Gold to ſink: 'tis *natural* for the Earth to be carried round the Sun in 365 Days, and for the Sun to enliven the vegetable and animal World. We ſay alſo, 'tis *natural* for the Soul of Man to move his Limbs by a Volition, or to have a Perception of White when he turns his Eyes towards the Snow. In all theſe Things we uſe the Word *Nature* for thoſe ſettled Rules by which the powerful Will of God governs his Creatures: And 'tis only in this Senſe *Nature* ſtands in oppoſition to *Miracle*, for 'tis in this Senſe only that God can change the natural Courſe of Things by miraculous Influence.

The Term *Nature* ſtands alſo for the Principles of Reaſon within us. By *Nature* we learn that there is a God, and that Man is not his own Maker. The ſame Word *Nature* alſo ſignifies the eternal Fitneſs or Unfitneſs of Things, and their moral Relations as well as natural: and in general it means the Spring and Foundation of all thoſe Duties which Reaſon teaches us; ſo we ſay, 'tis a *Law of Nature* that God muſt be honoured, Contracts ought to be kept, Gratitude is due to Benefactors, and Compaſſion muſt be ſhewn to the diſtreſſed:

'Tis in this Senſe that *Nature* is uſually diſtinguiſhed from *Revelation*, as when we ſay, Man by *Nature* may be taught to worſhip God, but 'tis only *Revelation* teach him that God will be worſhipped by a Mediator.

SECT. IV.

Of Creation or Conſervation.

IT has been a very famous Queſtion in the Schools, Whether *Conſervation be a continual Creation, i.e.* Whether that Action whereby God preſerves all Creatures in their ſeveral Ranks and Orders of Being is not one continued Act of his *creating* Power or Influence, as it were, giving Being to them every Moment: Whether Creatures being formed out of nothing would relapſe again into their firſt State of *Non-entity*, if they were not, as it were particularly reproduced by a creating Act of God: Now there is one plain and eaſy Argument whereby perhaps this Controverſy may be determined, and it may be propoſed in this manner.

In whatſoever Moment God creates a Subſtance he muſt create with it all the Properties, Modes and Accidents which belong to it in that Moment; for in the very Moment of Creation, the Creature is all paſſive, and cannot give itſelf thoſe Modes. Now if God every Moment create wicked Men and Devils, and cauſe them to exiſt ſuch as they are by a continued Act of Creation, muſt he not at the ſame time create, or give being, to all their ſinful Thoughts and Inclinations, and even their moſt criminal and abominable Actions? Muſt he not create Devils together with the

Rage

Rage and Pride, the Malice, Envy and Blaſphemy of their Thoughts? Muſt he not create ſinful Men in the very Acts of Lying, Perjury, Stealing and Adultery, Rapine, Cruelty and Murther? Muſt he not form one Man with Malice in his Heart? Another with a falſe Oath on the Tongue? A third with a Sword in his Hand, plunging it into his Neighbour's Boſom? Would not theſe formidable Conſequences follow from the Suppoſition of God's *conſerving Providence* being a continual Act of *Creation*? But ſurely theſe Ideas ſeem to be ſhocking Abſurdities.

Whereas if Conſervation be really a continu'd Creation, the Modes muſt be created together with their Subſtances every Moment; ſince 'tis not poſſible for Creatures, who every Moment are ſuppoſed to be nothing but the immediate Products of the Divine Will, ſhould be capable, in every one of thoſe very Moments in which they are produced or created, to form their own Modes in Simultaneous co-exiſtence with their Subjects.

I own there are Difficulties on the other Side of the Queſtion, but the Fear of making God the Author of Sin has bent my Opinion this Way. We muſt always inviolably maintain it for the Honour of the Bleſſed God, that all Spirits as they come out of his Hand, are created pure and innocent: Every ſinful Act proceeds from themſelves, by an Abuſe of their own Freedom of Will, or by a voluntary Compliance with the corrupt Ap-

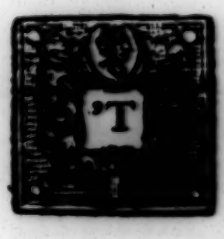
petites and Inclinations of Fleſh and Blood. We muſt find ſome better Way therefore to explain God's providential Conſervation of Things, than by repreſenting it as an Act of proper and continual Creation, leſt we impute all the Iniquities of all Men and Devils in all Ages, to the pure and holy God who is bleſſed for evermore. *Amen.*

ESSAY XII.

Remarks on ſome Chapters of Mr. Locke's *Eſſay on the Human Underſtanding,*

SECT. I.

Of Senſible Qualities, and particularly of Colour.



IS now univerſally agreed among all Men of Reaſoning and Philoſophy, that the *ſenſible Qualities*, ſuch as Colours, Sounds, Smells, *&c.* are not really inherent in the Bodies themſelves, ſuch as we perceive them, but are meer Ideas ariſing in the Mind from the different Impreſſions made on the Senſes. This is excellently explained and proved beyond Contradiction by Mr. *Locke*, in his Second *Book*, eighth *Chap.* —— But I have found one Argument more for the ſame Truth, which I think is equally ſtrong, and yet different from all his.

One conſiderable Reaſon that will prove Colour, as well as other ſenſible Qualities, not

to be really inherent in the Bodies themſelves, is this; that in order to the Perception of different Objects, or their different ſenſible Qualities, the external Organs of Senſe muſt be ſtruck or mov'd in a different manner by thoſe Objects. The way whereby we perceive Variety of diſtinct Colours, is by the Variety of Impreſſions that are made upon our optic Nerves by the Rays of Light reflected from coloured Bodies; theſe Rays of Light being reflected in various and different manners, require that the Surfaces of theſe Bodies which reflect them ſhould be really different from each other, and be compoſed of Particles of divers Figures or Sizes, Situations or Motions, for otherwiſe they could not reflect the Rays of Light in different manners; nor can any Diſtinction be made in the ſeveral Impreſſions of red and green Objects on the Eye, through the common Medium of Air, but what ariſes from the various Shapes and Sizes, and the Diſpoſitions of the Particles that compoſe the Surface of a red or green Body; becauſe theſe little Particles muſt variouſly reflect the various and different Rays of Light to our Eyes. If therefore Bodies of divers Colours be diſtinguiſh'd by our Sight, it muſt be by the diſtinct Impreſſions their Surfaces make by the Rays of Light on the Eye; for a meer inherent Quality, or a ſuppoſed Teint or Dye in the Bodies themſelves would not diverſify the Reflexions of Light, nor do any thing towards it, if the Surface of thoſe Bodie

dies were of the ſame Configuration of Particles. It is plain that we might have the ſame Impreſſions made on our optic Nerves, by various coloured Bodies, if theſe Colours were only inherent Teints, and had no other Difference in their Surfaces. The like may be ſaid of all other ſenſible Qualities, *(viz.)* the Variety of Odors, Sapors, Sounds. For if all theſe were only a Sort of inherent Qualities, ſuch as we perceive them, the Surfaces of theſe ſeveral Bodies might be the ſame as to the Figure, Size and Texture of the ſaid Particles that compoſe them, and conſequently they would make the ſame uniform Impreſſions on our Organs of Senſe, and raiſe the ſame uniform Senſations; and we could never diſtinguiſh theſe things which we call *ſenſible Qualities, (viz.)* the different Taſtes, Smells, *&c.* of different Bodies. All theſe therefore muſt ariſe from the different Configurations, *&c.* of the Particles of theſe different Bodies; for nothing elſe can excite different Impreſſions on our Senſes.

Shall it be *objected* here, that Sir *Iſaac Newton* has found by Experiment, that the Rays of Light themſelves are different, according to the various Colours which the Eye perceives? what need is there then of any Difference in the Surfaces of Objects?

I *anſwer*, That the Rays of Light differ according to Sir *Iſaac Newton*, in the Degrees of their Refrangibility; and Objects of all Colours, would reflect the ſame Rays,

and in the ſame manner, if the Surfaces of all coloured Objects were the ſame: There muſt be ſomething therefore in the Surface of different coloured Objects, more ſuited to reflect theſe differet Rays to the Eye; and that Object is called *Red*, which reflects the *Red-making* Rays, others Blue, others Yellow, *&c.*

'Tis confeſs'd indeed, where a Priſm ſepa rates the different ſorts of Rays, and throws, for Inſtance, only the *red-making* Rays upon a *yellow* Body very plentifully, and ſtrongly, this yellow Body in ſuch a Situation will appear *red*, becauſe there are few other Rays for it to reflect: But when Red, Blue, Yellow, Green and Purple Bodies are placed in common Light, the Surfaces of each of them will reflect to the Eye only, or chiefly, their one ſort of Rays, by virtue of their own different Surfaces, and thus diſtinguiſh their own Colours.

Another Argument which Mr. *Lee* uſes in his Notes on Mr. *Locke*, is this, that there are many things which appear of different Colours at the ſame time only by their different Situation to the Light, or the different Poſition of the Eye. So Glaſſes, cut Diamonds, Bubbles, Silks, Pictures, *&c.* which prove that Colour is not a Tincture really inherent in them; but ſo far as 'tis in the Bodies, 'tis only a particular Texture or Diſpoſition of the Particles of the Surface ſuited to make different Reflections of Light to the Eye, according

to

to its various Poſitions in relation to the coloured Body.

But it muſt be confeſs'd, Mr. *Locke*'s Chapter on this Subject is admirable well written, and worthy of diligent Peruſal and Study by every young Philoſopher.

SECT. II.

Of Succeſſion and Duration.

MR. *Locke*'s Doctrine of *Succeſſion* and *Duration* proceeding from the Train of Ideas in our Minds, is new and ingenious; but his ſecond Argument for it, contained in the beginning of the fourth Section, and taken from that Opinion of his, that the *Mind doth not think in Sleep*, I cannot approve of; and I think that the middle of that Section does rather effectually prove the contrary Poſition: For while a Man is very intent upon one Idea, he diſcerns not the Succeſſion of ſo many Moments, as if his Ideas had been often varied; and ſince it comes to paſs that in Sleep we cannot recollect our Ideas, but they vaniſh for the moſt part as ſoon as thay are form'd, it follows, that our Ideas of that Duration muſt be very ſhort, ſince we are ſo far from recollecting any Variety of Ideas in that Seaſon, that we can ſcarce believe by meer Recollection, that we had any Ideas at all at that Time: And I am perſuaded, ſhould a Man all at once loſe the Memory

Memory of what he had done this laſt Week or Month, ſo that the Ideas which he had a Month paſt, or the Actions that he then did, were the freſheſt in the Recollection, it would ſcarce appear to him that thoſe laſt Actions or Ideas were above a few Days old: ſo that the immediate vaniſhing and diſappearance of our ſleeping Ideas may be as much to the Purpoſe in this Sentiment about *Duration*, as though our Sleep had no Ideas at all.

Mr. *Locke*'s Conjecture, that the Train of Ideas do ſucceed one another at certain Diſtances of Succeſſion, which cannot be much delay'd or haſten'd, I muſt acknowledge to be an ingenious Thought, and a pretty Method of accounting for the original of our Notions of *Duration* and *Succeſſion*: and perhaps it may be the Reaſon why *Motions exceeding ſwift or exceeding ſlow, are not perceived by our Senſes*, of which Mr. *Locke* ſpeaks *Book* II. *Chap.* 14. §. 9, 10, 11. But here (as in many other Places) he avoids diſtinguiſhing what part the animal Spirits or bodily Powers may have, and what the Mind, in this Succeſſion of Ideas, which perhaps might ſolve this Queſtion with more Evidence.

What if we ſhould conceive thus, (*viz.*) that it may be poſſible for a Mind to have ten ſucceſſive Ideas in a ſeparate State in the time wherein it hath but one, when 'tis in Union with this Body? The Fibres of the Brain, which ſubſerve any of the Operations of

of the Soul, and the Filaments of the Nerves, which reach to the outward Organs of Senſe lying betwixt other Fibres or Filaments, or fleſhy Parts, can be moved but to a certain limited Degree of Swftneſs; and conſequently thoſe Motions of Bodies which are ſwifter than 'tis poſſible for theſe Fibres to be mov'd, can't be diſcern'd or diſtinguiſhed: But they appear like a long Line quieſcent rather than a ſhort Body mov'd, as a ſwift Arrow, or the Fly of a Jack. And as for exceeding ſlow Motions, as the Hand of a Watch, it makes no Impreſſion of its Motion at all upon the outward Organs of Senſe, or at leaſt ſo very weak an Impreſſion as that 'tis not communicated diſtinctly to the inward Fibres of the Brain, or common *Senſorium*, whereſoever that be; and conſequently, the Soul can have no Senſation or Idea of it: Thus the Motions, which are exceeding ſwift, or exceeding ſlow, are not diſtinctly diſcern'd. But in a ſeparate Spirit, or in a Spirit united to ſuch Matter whoſe Motions might be much ſwifter than the Fibres of our Nerves or Brain, it may be poſſible for us to have many ſucceſſive Ideas in the Time wherein now we have but one. And then the Duration, or Time, might be meaſured by thoſe Spirits, by the uſual Swiftneſs of the Succeſſion of their Ideas, as well as ours are now, where the uſual Succeſſion is now ſlow.

SECT.

SECT. III.

Of Infinity.

IN this ſeventeenth Chapter of *Infinity*, Mr. *Locke* is exceeding large, becauſe 'tis a Notion that has been the Spring of ſo many long and endleſs Debates among the Learned, and therefore he is pardonable, if by a Repetition of the ſame Things in copious Language, he endeavours to impreſs his Thoughts upon our Minds: his Notions of *Infinite* as an ever-growing, and not a poſitive compleate Idea, are of admirable Uſe to ſtop and put an End to thoſe Wranglings about *Infinity* in Time, Extenſion, ſwift and ſlow Motion, Diviſion, Number *&c.* which have abounded among ſome Writers. And let us chiefly make this Uſe of this Conſideration of *Infinity*, (viz.) to ſhow us how very narrow and bounded our Underſtandings are, and with what an awful Senſe of the Weakneſs and Frailty of our own Thoughts and Judgements we ſhould reaſon about an infinite God and his infinite Affairs.—We finite limited Beings ſoon loſe ourſelves among Infinites, whether great or ſmall, till we retreat within our own Bounds, and reaſon upon Things which are made for our Graſp of Thought. The great incomprehenſible Being has reſerved perfect poſitive Infinity to himſelf, and tho' there may be ſome Poſitions determined with Juſtice and

and Certainty about it, yet the leſs we mingle it with our Arguments, we are perhaps the more ſecure from Error.

SECT. IV.

Of Power. Book II. Chap. 21.

MR. *Locke* in his 21ſt Chapter of the 2d Book concerning *Power*, *Sect.* 4. ſuppoſes that the Idea of *active Power* is much more borrowed from Spirits than from Bodies; and is far better derived from the Mind's Reflection on its own Operations, and its Command over the Body to put the Limbs of it in Motion, than it can be from any external Senſation whereby we behold one Body having peculiar Influences over other Bodies, to make Changes in them, or to put them into Motion: and one Reaſon that he gives for it is, "That when one Body, *(viz.)* a Ball, puts "another Ball into Motion, it only commu- "nicates to it the Motion it had received it- "ſelf from ſome prior moving Body, and "loſes in itſelf ſo much as the other received; "which thing gives us, ſays he, but a very "obſcure Idea of an *active Power* in Body, "whilſt we obſerve it only to transfer, but "not to produce any Motion."

I will not here ſtand to conteſt it, whether the cleareſt Idea of *active Power* be derived to Men and Philoſophers from Bodies or from Spirits: But I am very apt to think in Children

it

it may be derived much more from their Senſation of Bodies, moving Bodies, than from their Reflection of any Act of their Spirits: for when they ſee a Fire burn Wood, or their own Hands put a Ball into Motion, or the Wind ſhake the Trees, they have as eaſy and as clear an Idea of a Power in the Wind to ſhake Trees, in their Hand to move a Ball, or in the Fire to burn Wood, as any Ideas of active Power which they derive from the Agency of their own Wills upon their own Limbs.

The Query which I beg leave to put in this Place, is, Whether that Opinion be true which Mr. *Locke* here ſuppoſes, and which is a famous Principle in the *Carteſian* Philoſophy, *(viz.)* That one Body can communicate no more Motion to another, than that which is in its ſelf? The Difficulty I would propoſe is plainly repreſented in this Inſtance: Suppoſe a Town built with many fair Houſes and Churches, each of them adorn'd with Spires and many Ornaments, ſhould be undermined, or have the Cellars of it filled with Barrels of Gunpowder, which have a mutual Communication with each other through all the Town; and ſuppoſe a ſingle Spark of Fire ſhould fall into one of thoſe Barrels, the Queſtion is, Whether all the dreadful Convulſion and Ruin of thoſe Buildings, together with the thundering Sound that ſhall be heard for twenty or thirty Miles round, be not a Proof of a prodigious Quantity

tity of Motion communicated to the Stones, Timber, Tiles, Bricks and all the Materials of thoſe Edifices, and to the ſurrounding Air, by that Spark of Fire, more than could poſſibly be contained in that ſingle Spark? And how can this Problem be ſolved upon this Principle? Or rather, Does not this Inſtance prove the Falſhood of that *Carteſian* Opinion?

SECT. V.

Whether Liberty can be aſcribed to the Will.

THE Author in the 6th, 17th, 19th and 20th Sections, ingeniouſly declares and proves the *Underſtanding* and *Will* not to be two Beings diſtinct from the *Mind* or *Soul* itſelf tho' they are uſually called *two diſtinct Powers* or *Faculties*; which manner of ſpeaking tho' it be almoſt neceſſary in ſome Caſes, and has great Conveniency in it, yet I cannot but aſſent to Mr. *Locke*'s Complaint, that it has perhaps been one Occaſion of leading Mankind into ſome miſtaken Conceptions about the ſeveral Actings of the Mind of Man.

But amongſt the reſt, he ſuppoſes this alſo to be a Miſtake, That *we aſcribe Liberty to the Will*; for ſince (argues he) the *Will*; is a Power of the Man to determine his own Actions, and *Liberty* is alſo a Power of the Man to act or not to act, *&c.* both theſe are properly Powers of the Man, and one Power cannot be

be aſcribed to another, nor Liberty aſcribed to the Will.

And he ſuppoſes us guilty of the ſame Miſtake, when we ſay, the *Underſtanding directs the Will*, or the *Will obeys the Underſtanding*, for they are two Powers of the Man, which have not an Agency or Operation upon each other, ſince Operation, ſaith he, belongs only to *Agents*, or real Beings, and not to Powers. All theſe Agencies of Powers on each other therefore he roundly denies, §. 17, 18, 19. and ſays, that the Power of Thinking, operates not on the Power of Chuſing, nor the Power of Chuſing on the Power of Thinking.

But I beg Leave to obſerve, that this Operation of one Power on another, is the common way of thinking and ſpeaking amongſt Men with Regard to the Powers of the Body as well as thoſe of the Mind, nor do I know any Impropriety in it, nor any Reaſon why it ſhould be alter'd. When the Author ſpeaks of the Faculties of the Body, he names the *digeſtive* and *expulſive* Faculty: and is it not proper to ſay, that in an Animal, the digeſtive Power operates upon the expulſive, and aſſiſts it in its Operation? May we not ſay alſo, that the maſticative or chewing Faculty operates upon the Digeſtive, and accelerates it in Digeſtion, without ſuppoſing theſe Faculties to be real and diſtinct Beings, different from the Body? So, in his other Inſtance of *Singing* and *Dancing*; Why may we not ſay

ſay, that *Apollo*'s Power of Singing or Muſick? operates on *Leſbia*'s Power of Dancing, ſince ſhe dances according to his Notes of Muſick? And is it not proper to ſay, That the Power of Thinking, whereby I perceive a Thing to be good, operates upon the Power of Chuſing it? Or the Power of Chuſing or Willing, operates on the Power of Thinking, when I ſet myſelf to think on any particular Subject by my Volition or Choice for an Hour together?

Now Mr. *Locke*'s Deſign in all the Denial of ſuch Attributions to a Power, is, as I hinted before, to ſupport his Aſſertion, That *Liberty or Freedom belongs not to the Will*; and therefore he ſuppoſes 'tis as unreaſonable and unintelligible a Queſtion to aſk, *Whether a Man's Will be free or not*, as 'tis to aſk, Whether his Sleep be ſwift, or his Virtue ſquare; for Liberty, which in his Senſe is but a Power to act or not to act, belongs only to Agents, and cannot be an Attribute, or Modification, or Power of the Will, which is alſo but a Power.

But in anſwer to this I would ſay, That perhaps in ſtrict and philoſophick Speech it may be better to ſay, *The Man*, or *the Soul is free*; yet ſince this is the common Language of Men, and the uſual way of ſpeaking on this Subject, and ſince this Way of ſpeaking, *(viz.)* aſcribing *Liberty to the Will*, has no ſuch Tendency to lead one to miſtaken Ideas, (if the Nature of the Soul be but a little explained, and the Powers of it pro-

ved not to be two diſtinct Beings or Subſtances) I can ſee no Neceſſity that a Philoſopher ſhould change the common Forms of Speech: And notwithſtanding all that Mr. *Locke* has ſaid, I ſee no Impropriety in aſking, *Whether the Will be free or no*, or in attributing Liberty to the Will, ſince it ſignifies no more than if we inquired, *Whether the Mind in its Volitions is free to Will, or not? And to will this or that?* Common Forms of Speech ſhould not be renounced and abandoned without evident Neceſſity, and Mr. *Locke* owns this is the Meaning of the Queſtion in the latter end of Section 22.

There is another Objection which Mr. *Locke* raiſes againſt the aſcribing Freedom to the Will, (viz.) *That a Man in reſpect of the Act of Volition, when any Action in his Power is once propoſed to his Thoughts, as a Thing preſently to be done, cannot be free*; for he muſt will to do it, or to neglect and omit it: and being under this Neceſſity to exert ſome Volition about it, the Will is not free, *i. e.* the Man is not free whether to will or not.

But I think this is a meer Fallacy, for the Queſtion is not whether the Man can abſtain from all Volitions in general, but whether the Will can determine itſelf to chuſe or refuſe this or that Object or Act propoſed. 'Tis not whether he can *neither* chuſe *nor* refuſe, but whether he can *either* chuſe *or* refuſe? For 'tis this that ſhews the Freedom of the Will: And I would remark here, as I have found

found ſometimes Occaſion to do, that 'tis poſſible for a vaſt and ſagacious Genius to be not always the faireſt Diſputant; the raiſing a Cloud of Duſt will ſometimes evade the true Queſtion, and appear to gain the Victory, when the Diſputant only hides himſelf.

The Debates of Mr. *Locke* relating to the Principle or Cauſe which determines the Will to act, and other Things relating to that important Queſtion are ſet, I think, in ſo clear a Light in a late *Eſſay of the Freedom of the Will in God and Man*, that I chuſe to remit my Reader to that little Book.

SECT. VI.

Of Complex Ideas, and mixed Modes.

IN the 12th Chapter of the ſecond Book of Mr. *Locke*'s *Eſſay on the Underſtanding*, in the 18th, 24th, and ſeveral other Parts of his Work, this Author ſpeaks in ſuch a manner as tho' all our complex Ideas of Subſtances and mixed or complex Modes, were formed by taking ſeveral ſimple Ideas and joining them in one Compoſition, to make a complex or compound Idea: and tho' Mr. *Locke* might not actually advert to it in thoſe Paragraphs, yet he muſt certainly grant that we do as often obtain a clear Knowledge of ſome *Compound* or complex *Beings* by receiving them at firſt into the Mind in all their complex Nature, and afterwards ſeparating them one from

another. Let me give an Inſtance of both Ways of acquiring complex Ideas. If a Child who is unacquainted with *Gold* ſee a *Guinea* at ſome Diſtance, he receives perhaps only the Idea of Extenſion and Yellowneſs; bring it nearer to the Light it appears round and ſhining; nearer yet, and he beholds the Stamp of the Coin; then touching it he finds 'tis hard, and taking it in his Hand 'tis heavy: thus by degrees he joins the Ideas of extended yellow, round, ſhining, the Figure of a Head, and Hardneſs altogether, and learns what a *Guinea* is; this is the Way of *Compoſition*. But if a *Guinea* be given at firſt into the Hand of this Child in a bright Place, his Ideas of Extenſion, yellow, round, ſhining, hard, heavy, *&c.* are impreſs'd all at once as one complex Idea on the Mind; and by ſeparation of them, and conſidering them diſtinct, he may come to clearer Notions of ſome of thoſe ſingle Ideas; and by Reaſon, Obſervation and Compariſon, he finds what *Gold* is, and what is a *Guinea:* This is the Method of Learning by Diviſion. The ſame Thought may be applied to a *City*, a *Fleet*, a *Swarm*, a *Heap*, a *Conſtellation*, *&c.* ſuppoſing that the firſt Idea the Child has of a *Houſe*, *Ship*, *Ant*, *Grain*, *Star*, be received in this complex manner by ſeeing many of them together. Thus Compoſition of ſimple Ideas, and Diviſion of complex ones, ſeem both to be uſed in the obtaining and encreaſing our Knowledge of Things, and enlarging our Number of Ideas.

And

And it muſt be acknowledged that Mr. *Locke* allows this way of coming by ſome of our complex Ideas *(viz.)* by Senſation or Obſervation of the ſeveral Ideas at once in their complex State or Union, when he ſays, *Chap.* 22. *Sect.* 2. *Several of them might be taken from Obſervation and the Exiſtence of ſeveral ſimple Ideas ſo combined.* And Sect. 9. *Thus by ſeeing two Men wreſtle or fence we get the Ideas of Wreſtling and Fencing,* which are very complex Modes.

The Author in his 18th Chapter, *Sect.* 2. gives us ſeveral Inſtances of our Ideas of ſimple Modes, ſuch as *ſliding, creeping, running, dancing, &c.* which perhaps may be as well called *mixed Modes* as ſome which he mentions in his 22d Chapter; for even there, at the End of the 10th Section, I think he makes *running* and *ſpeaking* to be mixed Modes: he calls them *Collections of ſimple Ideas*; and indeed 'tis ſometimes very difficult to diſtinguiſh Ideas ſimple from *complex*, whether they be Ideas of Subſtances or Ideas of Modes, partly becauſe the Acts of the Mind perceiving ſeveral Ideas and uniting them in one complex one are ſo ſwift and undiſtinguiſhable, that they ſeem to be one Act, forming one ſimple Idea; and partly becauſe Language hath appointed ſometimes a *ſingle* Word to ſignify a very *complex Idea*, and ſometimes an Idea much *more ſimple* needs *many Words* to expreſs it. Thus through the mixture and Confuſion of Ideas by Words, 'tis hard to diſtin-

guiſh always which are the ſimple ones and which the complex, or which are the pure and which the mixed.

Here I might inquire, what Difference doth Mr. *Locke* make between *complex Modes* and *mixed Modes?* Would it not be better to diſtinguiſh them thus? If we apply the Term *ſimple Mode* to the ſimple Ideas of Modes gotten by Senſation only, as *White*, *Black*, *Motion*, *Figure*, or to thoſe gotten only by Reflection, as a *Thought* a *Deſire*, &c. and if ſeveral ſimple Ideas combined, whether ſenſible or intellectual, or both, were called in general *complex Modes*; and the particular Term *mixed Mode*, were confined only to thoſe Ideas which include both ſenſible and intellectual Ideas, ſuch a *Speech*, *Converſation*, *Witneſs*, *Theft*, &c. we might perhaps diſcourſe more diſtinctly of theſe Subjects: But as this Author himſelf ſays in another Place, *We ought to put Things together as well as we can: but after all, ſome Things will not be bundled up together under our Terms and Ways of ſpeaking.*

SECT. VII.

Of Identity and Diverſity.

THE moſt familiar and common Objects of Knowledge are often found the moſt difficult to explain by Principles of Philoſophy in clear and diſtinct Ideas: Time, Place and Motion, the Fluidity, and the Hard-

Hardneſs of Bodies, the Coherence of the Parts of Matter, and the Principle of Gravitation are convincing Inſtances hereof. The Doctrine of *Identity* and *Diverſity* is as hard to be explained; and while every Child pretends to know what 'tis for one Thing to be *the ſame* with itſelf and not another Thing, Philoſophers are deeply entangled in the Search thereof, and frequently confounded in their Thoughts. This Author, Mr. *Locke*, has given us, in his 27th Chapter, an ingenious Attempt to unfold the Myſtery of *Sameneſs*, or wherein the *Principium inviduationis* conſiſts: and he deſcribes it, *Exiſtence itſelf which determines a Being of any ſort to a particular Time and Place incommunicable to two Beings of the ſame Kind.* Which Definition, tho' 'tis hard to underſtand in theſe Words, yet he makes much clearer by large Inſtances in the following Sections. His Meaning is, that *Identity* may have various Ideas according as 'tis applied to various ſorts of Beings; ſo the Sameneſs of an *Atom* is diſtinct from the Sameneſs of a *Maſs of Atoms*; and that is different from the Sameneſs of *Vegetables*, of *Animals*, of *Spirits*, of *Men.* The *Identity* of *Modes*, *Actions* and *Relations*, and thoſe Things whoſe Exiſtence conſiſts in Succeſſion, is pretty clearly determined in his 2d Section, and the Identity of *complex Beings* in his 28th and 29th.

But this Author having written more intelligibly on this Subject than preceding Philoſophers, grows bold, and aſſerts, that the

Difficulty of this Subject ariſes from Names ill-uſed, rather than from any Obſcurity in the Thing itſelf; and that 'tis want of Care and Attention that has clouded and confounded the Thoughts of Men. I take leave humbly to remark, that tho' in his general Scheme of *Identity* and *Diverſity*, as well as in his particular Application hereof to *Body*, *Mind*, *Plant*, *Animal*, &c. he has performed with great Ingenuity, yet there remain ſome Difficulties which want farther Care, Attention, and Aſſiſtance to remove.

Firſt, In his 2d Section he aſſerts that there could be no Diſtinction of Subſtances or any Thing elſe one from another; if we do not ſuppoſe *Minds* as well as *Bodies* to exclude any of the ſame Kind out of the ſame Place: Which is not only oppoſed by the vulgar Philoſophers, which ſuppoſe a thouſand *Minds* may be in the ſame *Ubi*, but 'tis very diſagreeable alſo with the juſter Notion of a *Mind*, which being not extended and having no Relation to Place, can neither be ſaid to admit or exclude Fellow-minds from the ſame Place; but that every Spirit is ſufficiently diſtinguiſhed from all others by its particular Cogitations and Conſciouſneſs.

And beſides, if Minds were extended, why may not two created Minds be in the ſame Place, and penetrate each other as well as he ſuppoſes God the infinite Mind to penetrate all Minds and all Bodies whatſoever? Muſt God be the *ſame* with all Minds, becauſe he penetrates

penetrates all Minds? If a Spirit be never ſo little denſer than Space, 'tis Matter; and if Spirits be no denſer than Spaces, why may they not penetrate each other as well as both Space and Spirit are ſuppoſed to penetrate Matter? I thought it had been a peculiar Property of Matter to be impenetrable by a Being of its own kind. What? is Spirit, impenetrable by Spirt too? Can a Spirit penetrate the groſſeſt Matter, and yet not penetrate that thin Extenſion of a fellow Spirit, which is finer than the moſt refined Matter, and as tenuious and unſolid as Space itſelf, as meer Emptineſs.

Secondly, In the 4th, 5th and 6th Articles he makes the *Identity of vegetable* and *animal* Beings to conſiſt in a Participation of the ſame continued Life by conſtantly fleeting Particles of Matter in Succeſſion vitally united to the ſame organized Body. Here I aſk leave to remark.

1ſt, Perhaps it would be too hard to aſk this Author * to explain with great Exactneſs what he means here by *Life* and *Vitally*; the ſame *Life* in a Plant cannot ſignify the ſame Juice or nutritive Particles; for it may be tranſplanted from Clay to Chalk, or from a Bed of Earth to a Bottle of Water, and ſtill 'tis the ſame Plant. Nor can Life mean the ſame Tubes or the ſame Channels betwixt the Fibres, for they may by Degrees be obſtructed,

* The Author was living when this was written.

ed, and new ones found or formed till the old are narrowed, withered, and grown impervious to the Juice. Nor can *Life* mean the ſame Method of Motion of that Juice thro' the Plant; for if you bend the Head of a Plant down to the Earth, and let its Top take Root, as may be done to Vines or Brambles, then cut off the old Stalk near its firſt Root, and the Paſſage of the nouriſhing Juice will be juſt contrary, and yet perhaps 'tis the ſame Plant ſtill. I would aſk further, when the Graft of a Pearmain has grown three Months, or ſeven Years, upon the Stock of a Crab, is it the ſame Tree? Has it the ſame Life or has it not? Or when did it change?

I might ſay the like concerning the Life of Animals. It can't be the ſame Blood that is the *ſame Life*; for in a few Months perhaps we have few of the ſame Particles of Blood as before; however, by Dr. *Lower*'s Experiment of *Tranſfuſion*, it may be all changed in an Hour. Nor can the ſame Veins, or Veſſels, make the *ſame Life*, for they are the ſame when the Animal is dead, or they may be changed in Life-time. Nor is it the ſame Motion of the Blood and Juices, that makes the *ſame Life*; for individual Motion can't be communicated to ſucceſſive Parts of Matter, ſince 'tis periſhing every Moment, as his 2d Section aſſure us. Beſides,

2*dly*, If a Tree, or Animal, be dead for ſome time, and by Almighty Power new Life and vital Motion be given to the ſame Matter,

ter, 'tis a different Life according to this Author; for 'tis not the ſame continued Life, yet it ſeems to be the ſame Plant and the ſame Animal.

3*dly*, In the End of his 8th Section the Author aſſerts, that the ſame ſucceſſive Body not ſhifted all at once, and the ſame immaterial Spirit united to it, goes to make the ſame Man. Here I would aſk, Whether it would be the ſame Man if it were ſhifted all at once? If *Goliah* at a Month old ſhould have all at once received that vaſt Addition to his Bulk which increaſed by degrees in forty or fifty Years, 'tis a Doubt whether he would have been the ſame Man or no: and yet why ſhould the whole Change in one Moment, hinder that to be the ſame Thing which the Diſtance of forty Years would neceſſarily make the ſame? And generally Nearneſs to the ſame Time and Place makes more toward the Sameneſs of a Thing than Diſtance of Place and Time. Yet upon the whole, I think Mr. *Locke* is in the right, tho' the Point has Difficulties.

And perhaps this is the true Notion of the Sameneſs of Man as relating to this World only; (*viz.*) That the ſame ſucceſſive Body changing itſelf by Degrees, according to the Laws of animal Life, and united to the ſame conſcious Mind, muſt make the ſame Man. How far the Doctrine of the Reſurrection requires the ſame Body, ſee *Eſſay* 8th foregoing.

Thirdly,

Thirdly, He comes to enquire in his 9th Section, wherein the *Sameneſs of a Perſon* conſiſts, or *perſonal Identity*. Here he firſt informs us, that he ſuppoſes, "A *Perſon* is a "thinking intelligent Being, which has Rea- "ſon and Reflection, and can conſider itſelf "as itſelf, *i. e.* as the ſame thinking Thing "in different Times and Places, which "it does only by that *Conſciouſneſs*, which is "inſeparable from Thinking." Now I queſtion, whether we may ſo eaſily agree with him in this, as a ſufficient Account of what a *Perſon* is.

Let us conſider a little. The Words *Self* and *Conſciouſneſs of Self* refer only to the Pronoun *I*; but are not the Pronouns *Thou* and *He* perſonal Pronouns as well as *I*? Suppoſe *Armando* has ſlain his Neighbour in the ſight of *Martys* and *Criton*, and ſhould be ſeized with ſuch a loſs of Memory afterward, or ſuch Diſtraction, as to blot out the Conſciouſneſs of this Action from the Mind. *Armando* then would ſay, *It was not I:* But may not *Martys* and *Criton* ſtill charge him, *thou art the Murderer?* May they not juſtly ſay of him, That *He is guilty*, and *He* ſhould be put to Death? Are they not as good Judges of the *ſame Perſon* as *Armando* is himſelf? What if *Armando* ſhould deny the Fact, as having really loſt all Conſciouſneſs of it? Is he not ſtill the *ſame Perſon* that ſlew his Neighbour? Does not the Witneſs of *Martys* and *Criton* declare him to be the *ſame Perſon?*

They

They know his Body to be the ſame; and according to the Laws of Nature, they juſtly infer his Soul muſt be the ſame alſo, whatſoever *Armando*'s Diſtraction might dictate concerning *himſelf:* I think therefore, that the Word *Perſon* implies one thinking Being, one intelligent Subſtance, which is always the ſame whether it be or be not conſcious and mindful of its own Actions in different Times and Places. *

But Mr. *Locke* ſeems to be of another Mind; for he adds, " By this Conſciouſneſs every one " is to himſelf that which he calls *Self:* it " not being conſider'd in this Caſe, whether " the ſame *Self* be continued in the ſame or " divers Subſtances. In this *alone* conſiſts " *perſonal Identity*, that is, the Sameneſs of a " rational Being." And in Section 10th, the Queſtion is, " What makes the ſame " Perſon, and not whether it be the ſame " identical Subſtance which always thinks in " the ſame Perſon, which in this Caſe mat- " ters not at all. Different Subſtances by the " ſame Conſciouſneſs (where they do partake " in it) being united into one Perſon, as well " as different Bodies by the ſame Life are " united into one Animal, whoſe Identity is " preſerved in the change of Subſtances by " the Unity of one continued Life: For it " being the ſame Conſciouſneſs that makes a " Man

* This Diſcourſe is intirely confined to Perſonality among Creatures, and has no Referenee to Divine Perſonality here.

" Man be himſelf to himſelf, *perſonal Identi-*
" *ty* depends on that *only*, whether it be
" annexed only to one individual Subſtance,
" or can be continued in a Succeſſion of ſeve-
" ral Subſtances.——The ſame Conſciouſneſs
" uniting thoſe different Actions into the ſame
" Perſon, whatever Subſtances contributed to
" their Production."

And Man that reads this, and knows that the Author is in doubt whether Matter may not think, would be ready to ſuſpect that he is ſo very ſollicitous to make the *ſame Subſtance* unneceſſary to *Perſonal Identity*, that ſo he may maintain his ſuppoſed Poſſibility of Matter being made capable of thinking; and that it may be poſſible that Thinking may inhere in animal Nature, whoſe conſtituent Particles of Fleſh and Blood may be perpetually changed, and yet the Animal remain the ſame, and be the ſame Perſon too.

But to indulge no further Suſpicions, let us conſider what he affirms plainly, *(viz.)* that *perſonal Identity conſiſts only in Conſciouſneſs*; for ſays he, Section 10th, " As far as
" any intelligent Being can repeat the Idea
" of any paſt Action, with the ſame Conſci-
" ouſneſs it had of it at firſt, or that it has
" of any preſent Action, ſo far it is the ſame
" perſonal Self; for it is by the Conſciouſneſs
" it has of its preſent Thoughts and Actions
" that it is *Self* to it Self *now*; and ſo it will
" be the ſame *Self* as far as the ſame Conſci-
" ouſneſs can extend to Actions paſt or to
" come:

" come: And he puts theſe *Queſtions*, Section
" 12th, Whether if the ſame Subſtance which
" thinks be changed, it can be the ſame Per-
" ſon? or whether if it remain the ſame, it
" can be different Perſons?"

To this he *anſwers*, This muſt be allow'd to thoſe who place Thought in a purely material animal Conſtitution, void of any immaterial Subſtance, becauſe the Subſtances are perpetually changing in animal Nature: But ſuppoſing immaterial Subſtances only to think, yet he ſeems to think it hard to ſhew why perſonal Identity cannot be preſerved in the Change or Variety of immaterial Subſtances, as well as animal Identity is preſerved in the Change of material Subſtances. Thus it is evident, that by his Reaſonings, he makes the *Sameneſs* of *a Perſon* to conſiſt entirely, and only in Conſciouſneſs, which he had before plainly and ſtrongly aſſerted.

I acknowledge he has offered ſome plauſible Arguments for it, and he has alſo mentioned ſome formidable Objections againſt his own Opinion; but I queſtion whether he has ſo well refuted thoſe Objections, as to render that Opinion of his certain and evident, (*viz.*) That the *Sameneſs of Perſons* conſiſts not in the Sameneſs of Subſtances, either Material or Thinking, *i. e.* either Body or Mind, but meerly in a Conſciouſneſs of the ſame Thoughts or Actions.

There is no need of debating the Point about

bout a Man's being the ſame Perſon with himſelf at the *preſent Time*, becauſe a Man's own preſent Conſciouſneſs will ſecure to him his own perſonal Identity, tho' perhaps it will not confine it to himſelf alone. But the chief Difficulty relates to his being the ſame with himſelf at *diſtant Times*. And here let us conſider ſome of the Difficulties he propoſes againſt his own Sentiments.

1. He ſeems to allow, that according to his Deſcription of perſonal Identity, two different Men may be one and the ſame Perſon; for in his 13th and 14th Sections, as well as in other Parts of this Chapter, he grants that a different Spirit created long after may poſſibly have the Conſciouſneſs of Actions done by a Spirit exiſtent many Ages before, impreſt upon it; by this Means the Mayor of *Queenborough* might ſuppoſe his Soul had been the Soul of *Socrates*, as Section 19, and then this latter Soul or Spirit, or this Man, becomes the *ſame Perſon* with the former, and thus *Socrates* and the Mayor of *Queenborough* become one Peſon.

But I deny this to be proper conſcious Remembrance: 'Tis only a deluſive Impreſſion on the Mind or Fancy imitating the Act of Memory; 'tis a ſtrong Belief of what is falſe. And can ſuch a Frenzy be ſufficient to turn two Men into one Perſon? Muſt *Domitian* be really the ſame Perſon with *Romulus*, if his Pride could ſo far impreſs his Imagination, and impoſe upon his Memory, as to perſuade

perſuade him that he built *Rome?* Is not this contrary to all the Senſe and Reaſon, as well as the Language of Mankind? And might not *Domitian* by the ſame Madneſs become *Ninus*, and *Darius*, and *Plato*, and twenty Perſons as well as two?

2*dly*, He ſeems to ſuppoſe, that real Forgetfulneſs may make a diſtinct Perſon as well as fancied Memory may make the ſame; and thus *Domitian* was not the ſame Perſon that killed Fleas, if ſtanding at the Head of his Army his Pride ſhould ſo far over-power his Memory, as to blot out all the Traces of that contemptible Imployment of his former Hours.

And ſuppoſe that one of his Soldiers ſhould by a Diſorder of his Brain imagine, that he was conſcious that he himſelf had thus been employed in the Palace of *Domitian*, and that he was then the Emperor; would this Forgetfulneſs of the one, and Frenzy of the other, make two *Domitians* upon the Spot, or two Perſons of *Domitian?*

Doth not this Author allow in Sect. 19. that if *Socrates* aſleep puts forth any Actions, and is not conſcious of it when he awakes, ſleeping and waking *Socrates* is not the ſame Perſon? And are they not two Perſons according to his Notion? His 20th and 21ſt Sections ſeem to ſpeak the ſame Thing.

The chief Anſwer that he gives hereto, is his Diſtinction betwixt *Man* and *Perſon*, he may allow that *Socrates* is the ſame Man ſtill,

i. e. the ſame Spirit united to the ſame animal Body; but he doth not allow him to be the ſame Perſon, becauſe not conſcious by remembrance of his own paſt Thoughts or Actions. And ſo I may be the ſame Man that performed a hundred former Actions of Life, tho' I have entirely forgot them all; but I am not the ſame Perſon that perform'd Millions of thoſe Actions, ſince I have entirely forgotten a far larger Number of my Thoughts than I can recollect. Now, I would only enquire whether ſuch a Diſtinction between *Man* and *Perſon*, is either correſpondent with the Nature and Reaſon of Things, or with the common Language of all Men, or the accurate Expreſſions of true Philoſophy?

In ſhort, according to this Doctrine of *perſonal Identity*, many Men may ſucceſſively or ſimultaneouſly be one Perſon; and thus every private Soldier in the Army of *Lewis* the XIVth may become the ſame Perſon as *Alexander the Great*, if a general Frenzy ſhould ſeize them, and make a ſtrong Impreſſion upon their Minds, that they fought the Battle at *Iſſus*, and beat *Darius* there. And ſo any one Man may become many Perſons: For if Mr. *N. Lee* the Tragedian in *Bedlam* hath a ſtrong Impreſſion on his Fancy, that he taught *Plato* Philoſophy, then he is the ſame Perſon with *Socrates*; or that he pleaded in the *Roman* Senate againſt *Mark Antony*, then he is *Cicero*; or that he ſubdued *Gaul*, and made himſelf Maſter of *Rome*, then he

is

is *Julius Cæſar*; that he wrote the *Æneid*, then he is *Virgil*; that he began the Reformation from Popery, then he is *Martin Luther*; and that he reign'd in *England* at the latter End of the ſixteenth Century, and then he is the ſame Perſon with Queen *Elizabeth*.

On the other hand, this Doctrine ſeems to allow us to believe, that if St. *Paul* ſhould irretrievably forget all the Labours and Sufferings that he underwent for the ſake of the Goſpel, he would not be the ſame Perſon that fulfill'd his Apoſtleſhip ſo gloriouſly: And if *Judas* ſhould never think again through all his future Exiſtence, that he betray'd the Saviour of the World, he would not be the Perſon that committed that heinous Wickedneſs.

The Way Mr. *Locke* comes off from any terrible Conſequences of thoſe Poſſibilities in his 26th Section, is by applying the Word *Perſon* to Man only in a *forenſic* Senſe, as he is the Subject of Happineſs or Miſery, and is an Object of Rewards or Puniſhments: And in Section 13. he ſuppoſes the Goodneſs and Juſtice of God will not ſuffer ſuch extravagant Poſſibilities to come to paſs, which may affect the Rewards or Puniſhments of Men; but his Equity and Truth will diſcover themſelves in attributing proper Recompences to *Men* or *Spirits*, conſidered only as *Perſons*, or in their perſonal Identity, *i. e.* as conſcious of their own former Actions of Vice or Virtue.

But without running to a *forenſic Senſe*, there are ſo many Inconveniences that may ariſe from ſuch a Notion of *perſonal Sameneſs*, even in the common Affairs of human Life, as well as in philoſophical Science, as may utterly diſcourage our Aſſent to this Notion.

The Word *Perſon* is often uſed, if not moſt frequently, without any forenſic Senſe: We ſay, *There were five Perſons preſent in the Room at ſuch a Time*, or *I had but one Perſon with me*, &c. And how can we tell how many Perſons were or were not preſent, if the ſuppoſed Conſciouſneſs of five other Perſons ſhould place them there at that Time, and render them the ſame Perſons? Or if the ſuppoſed Forgetfulneſs of the Perſons really preſent ſhould take away their perſonal Identity? I fear this Opinion, if univerſally received, would bring in endleſs Confuſions, whereſoever the Word *Perſon* was introduced.

Well, if Mr. *Locke*'s Opinion will not ſtand, the remaining Queſtion will be then, *What is perſonal Identity, or wherein does it really conſiſt?*

Firſt, I *would* here obſerve and allow, that we are now conſidering the Word *Perſon* rather in a philoſophical than a meer vulgar Senſe: For I grant there are ſome Modes of vulgar Expreſſion, wherein the Idea of *Perſonality* ſeems confin'd to the Body of Man: And thus we ſay, *A very tall Perſon*, or *a very comely Perſon*: Or when a Conſumption has made a Man lean and pale, or the Small Pox has

has altered the Countenance, we are ready to ſay, That *our Friend is not the ſame Perſon that he was before.* 'Tis plain, that theſe Phraſes relate purely to the Qualities of the Body. And ſometimes the ſame Mode of ſpeaking is uſed, with regard meerly to the Qualities of the Mind in Union with the Body, as when by long Sickneſs or old Age the Memory or reaſoning Powers are impair'd, we ſay of our Neighbour, *He is quite another Perſon than once he was.* But our Buſineſs here is to conſider *Perſonality* rather in its philoſophical Signification, which yet is by no means ſo very different from the more uſual Meaning of it in common Life, as Mr. *Locke*'s Account of it is.

I anſwer therefore *ſecondly*, that with Regard to *Mankind*, which is the only Thing we are now concerned about, the ſame Perſon in an *incompleat Senſe*, is the ſame intelligent Subſtance, or the ſame conſcious Mind or Spirit; but in a *compleat Senſe*, 'tis the ſame Spirit united to the ſame Body, that is, in ſhort, *the ſame Man*; Perſon and Man are here the ſame. Nor is this perſonal Sameneſs altered or aboliſhed, tho' the Man ſhould ſometimes be ſo impoſed upon by Frenzy, as to ſuppoſe himſelf to have a conſcious Memory of Actions which were not his own; or tho' he ſhould be utterly forgetful of his own proper Actions. Here are four Queſtions then ariſing.

I. *Queſt.* How can the ſame Body be ſecured to make a part of this ſame Perſon, ſince the Parts of an Animal are in continual

Flux and Change? I *anſwer*, 'tis moſt highly probable, that there are ſome original Particles of an animal Body, which continue from its Birth to its Death, through all the gradual and ſucceſſive Changes of other Particles, which may be ſufficient to pronounce it the ſame Body; and theſe may probably continue the ſame even till the great Reſurrection. See *Eſſay* 8. on that Subject. An univerſal Change of all the Particles of the Body at once will hardly allow us to call it *the ſame Body*.

But if there ſhould be no ſuch unchanging Particles in the Body of Man, yet in the ſame current Courſe of animal Life the Body may be called *the ſame*, according to the common Laws of Nature, continuing the ſame animal Life under ſlow and ſucceſſive Changes of the Particles of Matter, while Man abides in this World: And whether any Particle be the ſame or no in diſtant Years, perhaps 'tis not of ſo much Importance in any thing that relates to proper Perſonality in this Life, ſince theſe Particles have nothing to do in Thinking or Conſciouſneſs.

II. *Queſt.* How is the Sameneſs of the conſcious Mind or Spirit ſecur'd to make the other and moſt conſiderable part of the ſame Perſon? How can we be ſure that it is the very ſame Spirit or thinking Subſtance? I *anſwer*, that ſuppoſing a Mind or Spirit, or any conſcious Being to be intirely immaterial, and (as I think) inextended alſo, it is impoſſible that any Part of the Subſtance of it can be changed or dimi-

diminiſhed, without deſtroying the whole; becauſe 'tis ſo uniform and ſimple a Being, 'tis a conſcious and active Power ſubſiſting by itſelf. It has no Parts, and cannot but exiſt or ceaſe to exiſt in the whole or at once. Any new Subſtance therefore coming in the room of this makes it properly a *different Perſon*, it is another ſelf, another intelligent Mind or conſcious Being: And to do Mr. *Locke* Juſtice, he acknowledges in Section 25th, that *the more probable Opinion is that this Conſciouſneſs* (in which he ſuppoſes perſonal Identity to conſiſt) *is annexed to one individual immaterial Subſtance.*

III. *Queſt.* But ſuppoſing that *Frenzy* ſhould ſo far impoſe upon one Man as to make him fancy himſelf conſcious of the former Actions of another Man, or that *Forgetfulneſs* ſhould make him unconſcious of his own paſt Actions; how could he know and be aſſured that he was the ſame Perſon who performed his own Actions, or that he was not the ſame Perſon who perform'd the Actions of another? To this *I anſwer*, that for the common Affairs of human Life, God has in general ordained that Perſons ſhould be ſufficiently conſcious of their own Perſonality and Sameneſs with themſelves: Or if thro' any Diſorder of Nature a Man ſhould loſe or change the true Idea of *himſelf* and his own Actions, or falſely aſcribe the Actions and Perſonality of *another* Man to himſelf, and ſhould ſay, *I did this*, or *I did not that*, contrary to plain Truth and Fact,

there are generally Witneſſes enough among his fellow Creatures who are not thus diſordered in their Minds, to aſſure him *Thou didſt not* or *Thou didſt* according to plain Fact and the Truth of Things: and they are able to make effectual Proof to him, if he be capable of receiving it, that *He* is the *ſame Perſon* with his former ſelf, and that *He* is not *another Perſon*, or that *He* is the ſame Man and not another. By their Senſes they know his Body is the ſame; and they know that without a Miracle his Soul muſt be the ſame too, becauſe 'tis contrary to the Laws of Nature for a new Soul to be united to that Body.

In Matters of great or final Importance the Equity and Goodneſs of God will take care to prevent that one Man ſhall not be rewarded for Actions which he never did, and which he has no Pretence to but by his own Frenzy and diſordered Imagination: And alſo that one Man ſhall not ordinarily ſuffer any Puniſhment, without reducing to his Mind a Conſciouſneſs of thoſe Actions for which he is puniſhed. God the Judge of all will effectually ſecure this Matter in all his final Recompences of Mankind. If it be lawful for Mr. *Locke* to have Recourſe to the Equity and Goodneſs of God to guard againſt any unhappy Conſequences which may attend his ſtrange and novel Opinion, it is as lawful for a meaner Writer to have recourſe to the ſame Perfections of God to guard againſt any ill Conſequence that may attend an Opinion which is

ſo

ſo much plainer in itſelf, and ſo much more agreeable to the common Senſe of Mankind.

IV. *Queſt.* If you enquire further concerning the ſeparate State of human Souls, *what makes the perſonal Identity of Man there*, 'tis ſufficient to ſay, that 'tis the ſame individual Spirit which was once united to a certain animal Body, and performed good or evil Actions therein, and which has now commenced its State of Recompence ſeparate from the Body; and there is and will be a ſufficient Evidence of the Sameneſs of Perſonality for every ſeparate Soul during that Time, in its real Conſciouſneſs of its own former Actions without Forgetfulneſs or Deluſion, tho' its Perſonality may not be counted ſo *compleat* till the Reſurrection of the Body and its Reunion to it. Then ſhall the whole Man receive Recompences according to his former Behaviour in his compleat Perſon both Soul and Body. *Perſonality* and *Sameneſs of Perſons* either in this World or the other muſt not ſtand upon ſuch a ſhifting and changeable Principle, as may allow either one Man to be two Perſons, or two Men to be one Perſon, or any one Man or Perſon to become another, or to be really any thing but himſelf.

The End of the Eſſays.

A BRIEF

SCHEME

OF

ONTOLOGY:

OR THE

SCIENCE of BEING in general;

Wherein all the

Various AFFECTIONS, or Properties, Adjuncts and Relations of it are contracted into a comprehenſive View, and ranged in a natural and eaſy Method.

THE PREFACE.

EVERY Man who employs himſelf in thinking, endeavours to diſpoſe his Ideas in ſuch an Order as appears to him moſt comprehenſive and perſpicuous in itſelf, and moſt obvious to his own Survey, as well as eaſieſt for his Recollection. If I could have met with any ſuch ſhort and plain Scheme of Ontology *as I wiſhed, among the Authors whence I learnt that Science, I had never taken pains to form this Model or draw the preſent Sketch. I am not conſcious that I have admitted into it any of thoſe barren and perplexing Subtilties which have over-run this Branch of Learning, as it has been cultivated in the Schools under the Title of* Metaphyſicks.

In our Days indeed that Name is dropt, and with much better Reaſon it is term'd Ontology, *or the* Knowledge of Being *in general, with its various Affections,* i. e. *the Properties, Adjuncts, and Relations that belong to it. It is an uſeful Science in itſelf which teaches us to place every Being and every Thought and Idea in its proper Order*

Order in our Minds, and gives us an extenſive and regular Survey of Things; and I am ſure it may be exhibited in ſuch a manner as to ſecure it effectually from that juſt Cenſure, and that forbidding Character which the learned Profeſſor De Vries *gives to the* Metaphyſicks *of the Schools in former Ages. His Satyr on it may be thus expreſs'd in* Engliſh. "*This Science, ſaith he,* "*was treated of by the Sophiſters in ſuch a* "*Way, that one would ſwear they aim'd at no-*"*thing elſe but to vex and torture the Under-*"*ſtanding with difficult Trifles, and to infect all* "*Language with blundering Nonſenſe, and with* "*the grating Horror of barbarous Sounds which* "*have no Meaning. Theſe were Men of empty* "*and vain Subtilty, who built up huge Volumes* "*of worthleſs Words and Diſputes about nothing;* "*whoſe Leaves, if they were not divided by the* "*Grocers to wrap up Spice and Sugar, would* "*now lie for ever in Heaps to feed Moths and* "*Bookworms. This is ſo far from deſerving* "*the Title of* Wiſdom *or* prime Philoſophy, "*that 'tis rather the extreme Folly of Monkiſh* "*Dreams and Dotages.*"

Such juſt and ſevere Satyr as this being ſpread abroad in ſome modern Schools, and in the polite World, hath tempted our Youth to run to another Extreme: many of them will ſneer at the Name of Metaphyſicks, *and paſs a ſcornful Cenſure on all the Science of* Ontology *at once: they are aſhamed of knowing it, and therefore renounce all Pretence to it with Pride and Pleaſure. The endleſs Mulitudes of ſenſeleſs and empty* Diſtinctions

ſtinctions *of the Ancients, their uſeleſs and thorny* Queſtions *and* Diſputes *introduced into this Science, and the many old and abſurd* Canons *and* Axioms *which they were wont to place among thoſe Principles which they called the* prime Foundations of all Learning, *have appeared to our Age in ſo ridiculous a Light, that we have been too ready to throw away this uſeful Part of Philoſophy, becauſe of the Follies which have been blended with it. But it becomes a Philoſopher to diſtinguiſh between the Gold and the Droſs, and not to renounce and abandon a rich Mine becauſe the Oar is not refined, or perhaps has been debaſed with vile Mixtures by ſome fooliſh Labourers and Melters.*

If we would not ſuffer ourſelves to be impoſed upon by a little empty Raillery, but take a juſt View of Things in order to paſs a right Judgment, we ſhould find this Part of Philoſophy is very neceſſary and of admirable Uſe to all Men of Science, and that in every Branch of the learned Profeſſions: To have all the vaſt Multitude of Themes and Ideas about which we have Occaſion to think, ſpeak or write, ranged in a Set of regular Claſſes, ſo that we know where to find and place them all, is of unſpeakable Advantage in explaining, defining, dividing, diſtinguiſhing, illuſtrating, and arguing upon every Subject we take in hand. Nor does this ſerve only the Purpoſes of the College, and direct, aſſiſt, and facilitate the Labours of Students and the learned World, but Gentlemen and Perſons in every Degree of common Life might be taught

to enlarge the Number of their Ideas, to extend their Reaſonings far wider, and diſpoſe their Thoughts in more uſeful Order by the Aſſiſtance of this part of Knowledge, if it were diſplay'd in a happy and perſpicuous manner, with the Excluſion of Thorns, and Straws, and all the perplexing Trifles that had over-run the Academies of former Ages.

I wiſh ſome ſkilful hand would undertake this Work: If I was ever able to perform it according to my own Idea, yet it is too late in Life for me now to return to theſe Studies. What I have here written has in part lain long by me: It pretends to nothing more than a brief and compendious Sketch of Notions that relate to this Science, and a meer Arrangement of the moſt uſeful Themes which ſhould here be treated of, in a contracted View: and tho' it may be of chief Advantage for the Recollection of thoſe who have been acquainted with the Matters, yet I hope it will not be unſerviceable for the Inſtruction of ſuch as have known nothing of them if they will read with Attention and Care. In ſome Places I define not only the general Theme but the particular Kinds of it alſo; in a few others I only juſt mention the Terms of the particular Diſtinctions, and neither add any Definitions or Examples to them, where the very Terms are ſo plain that a common Reader may know the Meaning of them without Explication; but in moſt Places I give ſuch Examples as may ſufficiently explain and illuſtrate the Subject and the ſeveral Diviſions and Branches of it without laborious and diſputable Definitions. What

What the metaphyſical Writers have called Axioms *or* Canons, *are very numerous almoſt under every Head or Theme of Diſcourſe; but many of them are ſo falſe in the moſt obvious Senſe of them, and want ſuch a Number of Limitations and learned Diſtinctions to reduce them to Truth, that I thought it needleſs to ſtuff this* Eptome *with them. Many others are ſo uſeleſs to any valuable Purpoſes that they deſerve no room in the Mind or Memory. Thoſe few which are uſeful I have placed in their proper Chapters as* Notes, *and ſeveral others I have added which ſeem'd to me not unprofitable.*

'Tis not often that I divert out of my Way to tell the World particularly what the Moderns or the Ancients have ſaid on theſe Subjects, nor how far I agree with them or differ from them; but in the main I directly purſue my own Track of Thoughts, and range this infinite Variety of Ideas collected from the Univerſe of Beings in ſuch a Method as appears to me the moſt comprehenſive and natural, plain and eaſy.

A BRIEF SCHEME OF ONTOLOGY.

CHAP. I.

Of Being and Not-being, with a general Scheme of the Affections of Being.

ONTOLOGY is a Diſcourſe of *Being* in general, and the various and moſt univerſal *Modes* or *Affections*, as well as the ſeveral Kinds or Diviſions of it.

The Word *Being* here includes not only whatſoever actually is, but whatſoever can be.

Being is the firſt and moſt obvious, the moſt ſimple and natural Conception that we can frame of any Thing which we ſee, hear, feel, or know. 'Tis in ſome ſenſe included in

in all our other Conceptions of Things, and is therefore the moſt general or univerſal of all our Ideas.

By the *Affections* of Being are meant all Powers, Properties, Accidents, Relations, Actions, Paſſions, Diſpoſitions, internal Qualities, external Adjuncts, Conſiderations, Conditions or Circumſtances whatſoever; in a Word, all thoſe *Modes* which belong to Things, either as they are in themſelves, or as they ſtand in relation to other Things, or as they are repreſented or modified by our Ideas and Conceptions.

Since every Thing may be greatly diſtinguiſhed and illuſtrated by its Oppoſites, e'er we begin to treat of the Affections of *Being* in general, we may conſider very briefly what ſort of Notions we may frame of *Not-Being* or *Nothing*.

Not-Being, as it excludes all Subſtances and Modes whatſoever, is *Nihility* or *meer Nothing*.

Not-Being, as it excludes particular Modes or Manners of being out of any Subſtance, may be conſidered, either as a meer *Negation*, ſuch is Blindneſs or Want of Sight in a Stone; or as a *Privation*, ſuch is Blindneſs or Want of Sight in a Man; of which ſee *Logick*, Part 1ſt, Chap. II. Sect. 6.

Note 1. Pure *Nothing* conſidered meerly in itſelf has no proper Affections belonging to it; tho' our Imagination ſometimes may ſo far abuſe us as to miſtake Nothing for Something, as in the Caſe of *Shadow*: and at other

times we miſtake Something for Nothing, and ſuppoſe a *Room full of Light and Air* to have nothing in it. So weak and imperfect is our preſent State of Knowledge.

Note 2. Tho' a *Non Entity* or *Not-Being* is really nothing in itſelf, yet as it is introduced by ſome relation to Being it may afford Foundation for ſome ſort of Thoughts or Conceptions, or ſome relative Affections which hereafter will be deſcribed. On this Account *Non-Entity* has been uſually diſtinguiſhed from mere *Nihility* or pure Nothing.

Note 3. Hence it follows that that old Axiom of the Schools *Non-entis nulla eſt Scientia*, or *what has no Being cannot be known*, muſt be underſtood with ſome Limitation: For (1.) we may know Things *poſſible* tho' they have no actual Being: (2.) We may know Things *paſt* and *future* which have no preſent Being: (3.) We may alſo form a ſort of Idea of *Non-entities* or Not-beings from their Relation to Beings; we can ſee a Shadow, and talk of Silence: And even when we ſpeak of pure *Nihility* or *Nothing*, we are ready to frame ſome ſort of Notion or Idea of it ſince we reaſon and diſcourſe about it. Perhaps this may ariſe from the Imperfection of our preſent State.

Note 4. Tho' *pure Nothing* is that which in Truth neither has a Being nor Affections, nor can be properly made the Meaſure of any Being, yet *Negative Quantities*, which (as Mathematicians generally ſay) are Marks and Meaſures of what is *leſs than Nothing*, are of great

Uſe

Uſe and Neceſſity in *Algebra*; becauſe this Science teaches us to form our Ideas of all real and *poſitive Quantities* as ſo much *more than Nothing*.

Having diſtinguiſh'd *Being* from its Oppoſites, let us proceed now to lay down a general Scheme of the *Affections of Being*.

The moſt general and extenſive Diſtribution of the Affections of Being is into *abſolute* and *relative*.

Abſolute Affections belong to each Being conſidered in itſelf, and theſe are *Nature* or *Eſſence* and *Exiſtence*, *Duration* and *Unity*, *Power* and *Act*.

Relative Affections or *Relations* ariſe from ſome Reſpect which diſtinct Beings bear to one another, or at leaſt to ſome Part or Property of themſelves: Now theſe are *real* or *mental*.

Real Relations are thoſe which ariſe from the Conſtitution of any Being among others in the Univerſe to which it has a real Reference whether we think of it or no. Such are, *Whole* and *Part*, *Cauſe* and *Effect*, *Subject* and *Adjunct*, *Time* and *Place*, *Agreement* and *Difference*, *Number* and *Order*, to which may be added *Truth* and *Goodneſs*, leſt the *Metaphyſicians* ſhould complain of this Omiſſion.

Mental Relations are ſuch as ariſe not from Things themſelves, but only from our Manner of conceiving them and referring one Thing to another: Such are *abſtracted* or *ſecond Notions*, *Signs*, *Language*, and particularly all *extrinſic Denominations* and *Terms of Art*.

Note, All Affections of Being are not *positive*, but they may be ſometimes *negative*. Some Men are knowing, ſome are ignorant or without Knowledge.

CHAP. II.

*Of Eſſence or Nature, Matter and Form.**

AMONG the *abſolute Affections* of Being the firſt that offers itſelf is *Eſſence* or *Nature*; and it conſiſts in an Union of all thoſe Things, whether Subſtances or Modes, which are neceſſary to make that Thing be what it is; ſolid Extenſion is the Eſſence of *Matter*; an animal *Body* and *Soul* united are the Eſſence of a *Man*; and *many Flowers bound together* are the Eſſence of a Noſegay.

Note 1. Whatſoever is clearly contained in the Nature or Eſſence of a Thing, may be affirmed of that Thing: *Contingence* is contained in the Nature of a Creature, and we may ſay of every Creature, *it is contingent* or may not be. *Exiſtence* is contained in the Nature or Eſſence of God, and we may therefore affirm that *God has Exiſtence*, or *God exiſts*.

Note 2. The Eſſences of *Mathematical* Beings are immutable; never ſo little an Alteration deſtroys the Eſſence of a Circle or a Square:

* See this Chapter explained more at large in the Eleventh Eſſay foregoing, which was written when I deſigned to have drawn out this *Ontology* into a more compleat Form.

Square: But the Eſſences of *natural* Beings are not ſo, nor do they conſiſt in an indiviſible Point, but admit of Degrees. A Roſe with more or fewer Leaves may be a Roſe ſtill. Marble is ſtill Marble whether it be tinged Yellow or Gray, or made a little harder or a little ſofter. But when the Alteration or Difference is very great, 'tis ſometimes hard to ſay whether it retain the ſame Eſſence ſo as to deſerve the ſame Name: Is a Bat a Bird or a Beaſt? Is every Monſter to be called Man which is born of a Woman?

Query, When Mr *Locke* inferes from hence that the Eſſence of Natural Beings are but meer nominal Eſſences, does he carry this Matter too far, or not?

Tho' we do not ſo well know the diſtinct Eſſences and Natures of particular kinds of *Spirits*, as to ſay certainly what they conſiſt in, yet the Eſſence of every particular kind of *Body* certainly conſiſts of *Mater* and *Form*.

Matter is the ſolid extended Subſtance which is common to all Bodies: The *Form* includes and implies thoſe peculiar Qualities both real and ſenſible, which make any particular Body be what it is, and diſtinguiſh it from all other Bodies.

Note, Shape or Figure, Size or Quantity, Situation or Place, together with Motion and Reſt are called the *real* or *primary Qualities* of Matter, becauſe they do and would belong to Bodies whether there were any ſenſible Being to take notice of them or no. But Co-

lour, Sound, Taſte, Heat, Cold, &c. are called *ſenſible Qualities*, becauſe they are Ideas or Modes which we attribute to Things meerly as they affect ourſelves or any ſenſitive Beings. They are called alſo *ſecondary Qualities*, becauſe they ariſe from the different Combinations and Diſpoſitions of thoſe *real* and *primary* Qualities before named, and their Power to impreſs our Senſes in different manners.

The Matter of a Body is either *proxime* or *remote*; the *proxime* Matter of a Ship is Timber, the *remote* is Trees.

Note 1. *Matter* and *Form* have been improperly ranked among the *Cauſes*, yet they may be called conſtituent Principles of Things.

Note 2. *Matter* and *Form* have been tranſferr'd from Things corporeal to intellectual: So we ſpeak of the *Matter* of a Sermon or Treatiſe, which is the Theme of Diſcourſe; and the *Form* of it, which is the Manner in which the Speaker or Writer treats of it.

Hence ariſes the famous Diſtinction of *material* and *formal* uſually and pertinently apply'd to Subjects of various kinds, whether intellectual or corporeal. Wheat is Bread *materially*, and Ideas or Terms are *materially* a Propoſition; but neither one nor the other are *formally* ſo.

Having ſpoken of the *Nature* of Things in this Chapter, it may not be amiſs to take notice of a few Diſtinctions relating to it.

The

The Term *Nature* is ſometimes taken for the eternal and unchangeable Reaſon of Things; ſo it is neceſſary in the Nature of Things that three and four ſhould make ſeven; and that the three Angles of a Triangle ſhould be equal to two right Angles.

Sometimes it ſignifies the Courſe and Order of ſecond Cauſes, whether Minds or Bodies, together with the Laws of Matter and Motion which God the firſt Cauſe has ordained in this World; in this Senſe 'tis natural for the Limbs to move when the Soul wills, and the four Seaſons of the Year ſhould ſucceed each other in *Europe*.

In this latter Signification of the Word ſome Things are ſaid to be *according to Nature*, as when an Oak brings forth Acorns. Some are *beſide Nature*, as when an Animal brings forth a Monſter. Some may be called *contrary to Nature*, as when the Stock of an Apple-tree brings forth Pears by virtue of the Twig of a Pear-tree grafted into it, *Rom.* xi. 24. Other Things are *above Nature*, as are all the Inſtances of divine and miraculous Operation: tho' theſe are ſometimes called *contrary to Nature* too, as when the Streams of *Jordan* ran backward, or the Sun ſtood ſtill.

CHAP. III.

Of Exiſtence, whether actual, poſſible, or impoſſible, neceſſary or contingent, dependent or independent.

EXiſtence is diſtinguiſhed from *Eſſence* as the *actual* Being of a Thing is diſtinguiſhed from its meer Nature conſidered as *poſſible*.

A Being is *poſſible* when the Ideas which are ſuppoſed to make up its Nature may be actually united and have no Inconſiſtency, as a Golden Mountain or a River of Wine: But where the Ideas are inconſiſtent it is called an *Impoſſible* as an Iron Animal, or ſilent Thunder. This has neither Eſſence nor Exiſtence.

Impoſſibles may be diſtinguiſhed into four Sorts; ſome Things are *metaphyſically* or *abſolutely impoſſible* in the abſtracted Reaſon and Nature of Things, as a cubical Circle, a thinking Statue, a purple Smell, or a Buſhel of Souls. Others may be called *phyſically* or *naturally impoſſible*, i. e. according to the preſent Laws of Nature, ſuch are three Eclipſes of the Sun in a Month, or that a full Moon ſhould always laſt. Others are *morally impoſſible*, that is improbable in the higheſt Degree; for we may venture to ſay that 'tis impoſſible for an *Atheiſt* to be ſtrictly virtuous, or for a *Hottentot* to form a Syſtem of Religion or Mathematicks: And ſuch are many of the Legends of the *Popiſh* Saints. Other Things are ſaid to be *conditionally impoſſible*,

impoſſible, i. e. when ſuch a Condition is put as makes that Thing impoſſible, which otherwiſe would not be ſo, as a Tree bearing Fruit on Suppoſition it has no Bloom.

Note 1. It is *abſolutely* impoſſible that the ſame Thing ſhould both be and not be in the ſame Senſe, and at the ſame Time, and in the ſame Reſpect.

Note 2. When we pronounce any Thing *abſolutely* or *naturally* poſſible or impoſſible, we ſhould do it with great Caution, ſince we know ſo little what Ideas are or are not mutually conſiſtent, either in abſtracted Reaſon, or according to the preſent Laws of Nature.

Note 3. God is the only Being that carries actual Exiſtence in his very Nature and Eſſence, and therefore we may ſay with Aſſurance *God exiſts.*

Note 4. Proper Exiſtence belongs only to Individuals, for all general Natures, *i. e.* Genus, Species, *&c.* are but abſtracted Ideas of the Mind, and never exiſt alone, but only in individual Beings.

But let us proceed to the Ideas of *Neceſſity* and *Contingency*, which in this Chapter relate to the *Exiſtence* of *Things*, in the ſixth Chapter to *Actions.*

All Things which exiſt have either a *neceſſary* Exiſtence, *i. e.* they are becauſe they muſt be; or they have a *contingent* Exiſtence, *i. e.* they are, tho' they might not have been, and may ceaſe to be.

A neceſſary Being wants no Cauſe and is *independent:* But a contingent Being is *dependent*, becauſe it wants a Cauſe to make it exiſt.

This Dependence is either *total* or *partial*; *conſtant* or *occaſional*; for *Exiſtence* or for *Duration*, or for *Operation*, &c. ſee more in Chap. IV. and in Chap. X.

Note, Independence in the higheſt Senſe belongs only to God, and is the ſame with *Self-Exiſtence*, and near akin to the Idea of neceſſary Exiſtence.

Neceſſity of Exiſtence may be diſtinguiſhed into abſolute or conditional: *God alone is abſolutely neceſſary*, for he muſt exiſt whether any other Thing be or be not: but as for Creatures, tho' they are properly *contingent* Beings, yet a *conditional Neceſſity* may belong to them, *i. e.* ſuch a Creature or ſuch an Event muſt exiſt if the Cauſes are put, which will certainly and neceſſarily produce it: If a Hen's Egg be hatched it will produce a Chicken: If the Sun riſe there will be Day-light: If a Man will leap down a vaſt Precipice, he muſt be deſtroyed.

'Tis called alſo ſometimes a *conditional Neceſſity*, when ſuch Premiſes or Conditions are put from whence an Event may be certainly inferred, tho' they have no manner of cauſal Influence on this Event: So we may ſay, that it was neceſſary *Antichriſt* ſhould ariſe, becauſe the God of Truth, had foretold it.

Neceſſity may be divided into *natural*, *logical*, and *moral*: By *natural Neceſſity* Fire burns, and Snow melts in the Sun-beams. By *logical Neceſſity* the Concluſion of a Syllogiſm follows from the Premiſes. By *moral Neceſſity* intelligent Creatures are obliged to worſhip God, and Virtue will be finally rewarded: tho' I know ſome Writers take the Term *moral Neceſſity* in another Senſe.

Both *Neceſſity* and *Contingence* are Ideas frequently apply'd to the Events which ariſe in the natural World, *i. e.* the World of Bodies, whether animate or inanimate: but the Events in the moral World are more uſually called *contingent*, *i. e.* the voluntary Actions of intelligent Creatures; tho' Neceſſity may in ſome Caſes be aſcribed to them too, as the bleſſed God neceſſarily acts agreeably to his own Perfections: A rational and ſenſible Being neceſſarily hates Pain and Miſery.

Events *in the natural World* are ſaid to be *neceſſary*, or to ariſe from natural Neceſſity, when they are derived from the Connection of ſecond Cauſes, and thoſe Laws of Motion which God eſtabliſhed in the World at the Creation, and which he continues by his Providence. This is the chief and moſt uſual Meaning of the Word *Nature*: and indeed *Fate* in its Derivation and original Senſe ſignifies but the Dictate or Decree of God. But if the Appointment of God be left quite out of our Thoughts, then Fate is a Heatheniſh Term

Term to denote a ſort of eternal neceſſary Connection of Cauſes, without regard to the firſt Cauſe; and ſome of the *Heathens* have exalted this *Fate* above the Gods themſelves.

Events in *the natural World* are ſaid to be *contingent*, or to ariſe from *Chance* when they are different from what is uſual in the Courſe of Nature, and utterly unexpected, tho' indeed the Courſe of Nature, really produces them by the Interpoſition of ſome Cauſes imperceptible to us. Yet the Heathens have made this *Chance* and *Fortune* a ſort of Deities too, for want of their Knowledge of the Train of ſecond Cauſes, and a due regard to the firſt Cauſe. Events *in the moral World* which ariſe from the meer free Will and Choice of intelligent Beings, are called *contingent*, becauſe they are not brought into Exiſtence in a neceſſary manner by any natural Connection of Cauſes: Yet they are never aſcribed to *Chance*, for Chance ſtands as much in Oppoſition to *Deſign* and *Freedom*, as it doth to *Fate* and *Neceſſity*.

We might here juſt take occaſion to obſerve, that not only with regard to *Exiſtence* are Beings ſaid to be *neceſſary* or *contingent*, but with regard to the *manner of their Exiſtence* alſo. God is neceſſary in this Reſpect as well as in the other, and therefore his Being and his Attributes are *unchangeable*. But Creatures are *changeable* Things, becauſe their *manner of Exiſtence* is contingent, as well as their Exiſtence itſelf.

Note

Note 1. All the future Events which ariſe from natural and neceſſary Cauſes will not only *certainly* but *neceſſarily* exiſt; and tho' we call many of them *Contingencies* becauſe they are uncertain to us, yet they are not ſo to God who knows all Things. So we ſay, *It may or may not rain to morrow.*

Note 2. All the future Actions of free Agents and the Events ariſing from thence (both which are properly *contingent*) may be certainly foreknown by God; and therefore we may ſay, *they will certainly exiſt*, tho' there be no ſuch Determination of them as to make them properly *neceſſary*; for the great and unſearchable God, who has foretold many free Actions of Men, may have Ways of knowing Things *certainly* which we cannot ſo much as gueſs at. 'Tis too audacious for Man to aſſert that God cannot know Things, meerly becauſe we cannot find out a Medium for his Knowledge of them.

See ſome further Conſiderations of *Neceſſity* in Chap. VI. where we treat of *Freedom.*

CHAP. IV.

Of Duration, Creation, and Conſervation.

Duration is meerly a Continuance in Being: and this has commonly been divided into permanent and ſucceſſive.

Permanent Duration belongs to God alone, and

and implies not only his Continuance in Exiſtence, but an univerſal, ſimultaneous and endleſs Poſſeſſion of all the ſame Properties and Powers without Change.

Succeſſive Duration belongs to Creatures, and implies the Continuance of the ſame Being with changeable and changing Modes, Powers, Properties and Actions one after another.

It is only *ſucceſſive Duration* which is moſt properly divided into *paſt*, *preſent* and *future*. The preſent taken in a ſtrict Senſe is only the Moment that *now* exiſts, and divides the Hours or Ages paſt from thoſe which are to come.

It is very hard for us to conceive of any Duration without Succeſſion: But this permanent Duration of God is his *Eternity* which carries ſome Things in it above our preſent Ideas. See more in the Chapters of *Time* and *Infinites*.

As *Creation* gives Exiſtence to all created Subſtances, ſo *Conſervation* is ſaid to give *Duration*, i. e. Continuance in Exiſtence to all Creatures.

Tho' the moſt proper Idea of *Creation* is the cauſing a Subſtance to exiſt which had no Exiſtence, yet the Word is alſo us'd in a leſs proper Senſe, when any particular Bodies are formed out of ſuch a Maſs of Matter as ſeems utterly unfit for that End; when ſuch Changes are made in any Subſtance as are generally ſuppoſed

poſed to be above the Power of Creatures and belong to God alone: So God created Fiſh and Fowls out of the Water, and Man and Beaſts out of the Earth; tho' the Creation of the Subſtance of Water or Earth, or the Matter out of which they were made, is the original Senſe of the Word.

Conſervation here refers to the ſame Things which are the Objects of *Creation*, and on which God is ſuppoſed to exerciſe his Almighty Power.

Queries. Enquire then, how far do *Creation* and *Conſervation* differ? Is Conſervation a continued Creation? See *Eſſay* XI. *Sect.* ult. If a Creature be once formed would it not continue to exiſt without any divine conſerving Act? Is it poſſible the Creator ſhould exiſt without willing or nilling the continued Exiſtence of his Creatures?

Note, Subſtances being once made, a Creature cannot of himſelf deſtroy them, or make their Duration to ceaſe, any more than he could of himſelf create them: But Multitudes of Modes are made and deſtroyed perpetually at the Will of Creatures, and are placed within their Power.

Note, Tho' *Time*, *Place*, *Ubiety*, might be introduced here and connected with *Duration*, yet they are all plainly *relative Affections*, and therefore I refer them to their more proper Place.

CHAP. V.

Of Unity and Union.

THE next *abſolute Affection* to be conſidered is *Unity*, which perhaps had never had the Honour to make a Chapter in *Metaphyſicks*, if it had not been coupled with *Verity* and *Bonity*; which three Properties being aſcribed by *Plato* to God the great and eternal *Being*, *Ariſtotle* his Scholar aſcribes them all to the Idea of *Being* in general, and thence came theſe Ideas to make ſuch a Figure in *Ontology*; tho' it muſt be confeſt that ſeveral Things have been ſaid on theſe Subjects which furniſh the Mind with uſeful Diſtinctions.

Unity is that whereby a Thing ſtands as it were divided in our Conceptions from all other Things: and this Unity is either *ſimple* or *compounded*; we ſay *one Noſegay* as well as *one Flower*, and *one Family* as well as *one Perſon*, and *one Univerſe* as well as one Creature or one Atom. See ſomething further concerning *Unity*, *Simplicity*, and *Multiplicity* in Chap. XIV. of *Number*.

Here we take Occaſion to treat of the Doctrine of *Union*, tho' perhaps ſome may call it a *relative* Idea. 'Tis that whereby two or more Things either *really* become one Thing or are conſidered as one: This diſtinguiſhes Union into *real* and *mental*.

Real

Real Union is either *natural* and *neceſſary*, as between the Root and the Tree; or *fortuitous* and *accidental*, as between two Apples making a Twin; or *deſigned* and *artificial*, as between the Graff and the Stock, or Drugs united to compound a Medicine.

Again, real Union is *corporeal*, *ſpiritual* or *human*.

Firſt, conſider *corporeal Union* or Union of Bodies, whether dry or liquid, which is made by blending, mixing, compounding, by Contact, Aggregation, Colligation, *&c.* Under this Head we may alſo treat of vital and of inanimate Unions of corporeal Beings. Some of theſe corporeal Unions may communicate Properties, as Fire joined to Wood, a Graft joined to a Stock, Perfume to Garments. Others do not, as a Bundle of dry Sticks, or a Heap of Stones.

Secondly, Conſider *ſpiritual* Union or Union of Minds: which may be called either *intellectual*, by mutual Conſciouſneſs of each other's Thoughts, or by Agreement in Opinion: or it is *moral*, by Friendſhip or mutual Love; or *ſupernatural*, as it may relate to God and the ſacred Themes of revealed Religion.

Query, How far an *Union of Spirits* may ariſe from a ſuperior Spirit aſſuming an inferior to act by it in the manner of an Inſtrument, or Under-agent? In this there is no *real* Communication of Properties; yet the ſame Actions may be aſcribed to both or to either

when united, and the ſame Properties too by common Figures of Speech. But this I leave to Theological Debate.

In the laſt Place conſider *human Union*, *i. e.* the Union of an animal Body with a Spirit to make a Man; and what are the Effects of this Union *(viz.)* Senſation, Imagination, Paſſion, *&c.* voluntary Motions of the Body, *&c.* And let it be noted, that tho' there be no *real* Communication of Properties here, yet there may be a *nominal* Communication of them; as a *wiſe Head-piece*, *a meagre Soul*, *a prudent Body*, *a heavy Genius*.

Mental Union is when ſeveral Things really diſtinct and different are conſidered as one: There are no two Beings, nor any Multitude of Things ſo different and diſtinct, but may by their Likeneſs or Agreement, Situation or other Circumſtances, come to be conſidered as one Thing, and come under one Name. Air, Water, Earth, and all the infinite Variety of Creatures make one *Univerſe:* All Individuals are united in one *Species*, and all Species under one *Genus*; all Subſtances, whether Minds or Bodies, come under one general Name of *Being*; and all the Ideas and Collection of Thoughts as well as Words in this Book make one Treatiſe of *Onotology*. Note, in all theſe Inſtances there is a real Foundation for this *mental Union*.

In many Unions we have occaſion to conſider not only the *Terms* which are the Things united,

united, but alſo the *Means* or *Bond* of Union between theſe Terms. In a Noſegay the Bond of Union is a Thread: in Metals 'tis Sodder: in a heap of Stones 'tis Juxta-poſition and Gravitation: between Friends the Bond of Union is Love: between Kindred 'tis Birth: between Maſter and Servant 'tis Contract, *&c.* But there are many Things united where the Bond of Union is unknown, or muſt be reſolved into the Appointment of God. What is it unites the Parts of Matter in a hard Body? What is it unites the Fleſh and Spirit in Man?

Union and Compoſition may give Occaſion alſo to ſpeak of *Abſtraction*, *Diviſion*, *Diſſolution*, *Separation*, &c. which ſtand in Oppoſition to Union.

CHAP. VI.

Of Act and Power, Action and Paſſion, Neceſſity and Liberty.

THE next *abſolute Affections* of Being are *Act* and *Power*; tho' it may be a little doubtful whether there is not enough of *Relation* between theſe two Ideas to throw them into the Rank of *relative Affections.*

Each of theſe *(viz.) Act* and *Power* may be diſtinguiſhed three Ways.

1. As *actual Being* or *Exiſtence* is diſtinguiſhed from *Potential*, or a *Power to be:* So a

Book already written differs from a Book which may be written, or that is merely poſſible.

2. As *actual Doing* or *Action* is diſtinguiſhed from a *Power to do:* So the actual putting Bodies in Motion differs from Motivity or a Power to move them: So the Acts of Thinking in Spirits have ſome ſort of Difference from the thinking Power.

3. As *actual Suffering* or *Paſſion* is diſtinguiſhed from a *Power to ſuffer:* So actual Diviſion in Matter differs from mere Diviſibility: or the actual Motion of a Body is different from Mobility or a Power to be moved.

Here we treat of *Action* which is the Exerciſe of a Power to do, and *Paſſion* which is the Exerciſe of a Power to ſuffer. *Note, Paſſion* and *Suffering* in this philoſophical Senſe ſignifies only receiving the Act of the *Agent* or *Doer* by the *Patient* or *Sufferer.* When Hailſtones ſmite upon a Rock, the Hailſtones are the Agents, the Rock is the Patient: 'tis no Matter whether any Impreſſion be made or no; or when a Child honours his Father, the Father is the Patient in a philoſophical Senſe, and the Child the Agent.

Here 'tis proper to introduce all the needful Diſtinctions of *Action.* (1.) 'Tis Immanent or Tranſient. (2.) 'Tis Natural, Supernatural, Voluntary or Accidental. (3.) 'Tis Neceſſary or Free.

1. *Immanent Action* has no different Patient but continues in the Agent; ſo a Man forms

forms Ideas, or he loves himſelf. *Tranſient Action* paſſes over to ſome other Object as a Patient: So a Man draws a Picture on a Canvas: So a Father loves his Son, and feeds or clothes him.

2. *Natural Action*; ſo the Fire hardens Clay. *Supernatural Action*; ſo *Eliſha* made Iron ſwim by caſting a Stick into the Water. *Voluntary Action*; ſo the Potter moulds his Clay into a Veſſel. *Accidental Action*; ſo a Servant heedleſsly throws down a Glaſs and breaks it.

3. *Neceſſary Action*; ſo the Sun warms the Earth: *Free Action*; ſo Man chuſes what Food he likes and eats it when he pleaſes.

Note, *Neceſſary Agents* act always, and that to the utmoſt of their Power, *i. e.* when Things requiſite to their Agency are preſent: But Free Agents act what and when and as far as they will.

Perhaps the Doctrine of *Liberty* and *Neceſſity* might be here properly inſerted. We have already ſpoken of *Neceſſity of Exiſtence* as it is oppoſed to *Contingency*: Here *Neceſſity of Action* ſtands rather diſtinguiſhed from *Freedom* or *Liberty*, yet is not univerſally and utterly inconſiſtent with it, as will appear in what follows.

Neceſſity has been before diſtinguiſhed into *natural*, *moral* and *logical*. See Chap. iii. Natural Neceſſity is either *internal* or *external*. *Internal* Neceſſity is that which ariſes from

the very Nature of the Thing itſelf, ſo a ſenſible Being ſeeks its own Preſervation, a Fiſh avoids dry Dand, and a Fox the Water, and Lead ſinks in the Sea: That Neceſſity is *external* which ariſes from ſome outward Force of Reſtraint or Conſtraint; ſo Lead is upheld on the Surface of the Water; ſo a Fox is driven into the Sea, or a Fiſh drawn in a Net to Land, and ſo a Man is conſtrained to wound himſelf. This is ſometimes called a *forcible Neceſſity*.

Liberty is applied to the *Will*, or to the *inferior* and executive *Powers*. The Will is always free in its Choice of what it likes: The lower Powers are not always free to act or do what the Will chuſes. A Man cloſe fettered cannot walk, nor can he fight when his Hands are tyed, tho' he may will or chuſe to do it. On this Account Freedom is better deſcribed by *chuſing* than by *acting*.

Again, Liberty of the Will is always a *Liberty of Spontaneity* or *Voluntarineſs*, without conſidering whether it can do otherwiſe or not: So when an intelligent Being wills and purſues its own ſuppoſed Satisfaction or Happineſs, this Being is called free herein, tho' this Action be neceſſary, and it cannot do otherwiſe. The Liberty of the Will is ſometimes a *Liberty of Choice and Indifference*, a Freedom or Power to chuſe or not to chuſe among two or more Things propoſed: So a Man chuſes to ſpeak or to be ſilent. This Freedom is inconſiſtent

conſiſtent with *Neceſſity*; and this is called by many Writers *Liberty* in the moſt proper Senſe: and perhaps it had not been amiſs if the Term *Liberty* had been always confined to this Senſe only, but Mankind have not always done ſo.

There may be alſo an *abſolute* or *perfect* Freedom, as when a hungry Man wills to go to Dinner; or a *comparative* Freedom, when a ſick Man wills or conſents to take ſome nauſeous Phyſick rather than continue in Pain.

Let this ſuffice for the Diſtinction of *free and neceſſary Actions* See ſomething more relating to this Subject in the Chap. of *Cauſe* and *Effect*.

Some Philoſophers ſuppoſe nothing worthy of the Name of *Agent* or *Action* but the *Will* and its Exerciſes; and they call all other Beings and their Powers and Operations merely paſſive; but this perhaps is too great a Violence offered to the common Senſe of Words, tho' there may be ſome Appearance of Reaſon for it in the Nature of Things.

Having ſpoken particularly of *Act* and *Action*; let us now ſay ſomething more of *Power*.

We may diſtinguiſh ſeveral *Powers* with the Degrees and Kinds of them. Firſt, *Diſpoſition*, which is an imperfect Power of performing any thing, and but the loweſt Degree: Next to this is *meer Ability* to perform, *i. e.* with Difficulty and Care; and then a ſtrong *Habit*,

Habit, *i. e.* to perform with Eaſe and Certainty.

Among Powers, ſome are meerly *corporeal* and *inanimate*, as the Power of the Sun to melt Snow, and to draw up Vapor: Some are *vegetative*, as Nouriſhment, Growth: Some are *animal* Powers, as eating, ſwallowing, digeſting, moving, waking, ſleeping, *&c.* Some are *ſpiritual*, as meditating, reaſoning, reflecting, chuſing, refuſing, *&c.* Some are *human*, ariſing from the Union of Mind and Body, as Senſation, Imagination, Language. Of the *Paſſions* of Man and what ſort of Powers they are, ſee the *Doctrine of the Paſſions explained and improved. Edit. 2d*, 1732.

Again, Of Powers ſome are *natural*, as a Man's Power to form a Voice: ſome *acquired*, as Muſick, Ploughing, Language learned by Degrees; and ſome are *infuſed*, as the Power of the Apoſtles to ſpeak many Languages.

Powers acquired by Exerciſe are moſt properly called *Habits*. All Powers of *natural Action* in Animals or *artificial* in Men, are called *Faculties*, as a Power of Walking, Dancing, Singing: in inanimate Beings they are *Principles*. Powers of *moral Action* are called alſo *Principles* or *Habits*, as Temperance, Juſtice.

Note 1. Tho' we can draw no Inferences from the *Power* to the *Act*, or that any Thing is becauſe it *can be*; yet Inferences may be juſtly drawn from the *Act* to the Power, or that ſuch a Thing *can be* becauſe *it is*.

Note 2.

Note 2. Whatſoever Power the Agent has to act, yet the Action can be received by the Patient no further than the Power of the Patient reaches. This is expreſt in ſcholaſtick Language, *Quicquid recipitur, recipitur ad modum recipientis*, A Gallon may pour out its Liquor into a Pint Bottle, but the Bottle can receive but a Pint: And if the Neck be narrow it can receive Liquor but ſlowly how faſt ſoever the larger Veſſel may pour it. A Tutor may teach a Child all the Rules of reading in a Day, but a Child cannot learn them in a Month.

Note 3. Neither the Power of Creatures nor of God himſelf extends to Things which are inconſiſtent in Nature and Self-contradictory: What his infinite Wiſdom cannot join his Power cannot produce. Nor does this Impoſſibility in Things argue any Impotence in the Bleſſed God. Yet let it be obſerved, that it is a much more modeſt way of ſpeaking generally, to ſay ſuch Things cannot be done, than that God cannot do them.

CHAP. VII.

Of relative Affections or Relations.

A *Relative Affection* is the ſame with a *Relation*: This ariſes from the Reſpect that one Thing bears to ſome other Thing or Things in the Univerſe, or to ſome Part or Parts, Property, or Properties of itſelf. The ſame

ſame Relation is not confined to two Things, but it may belong to many. *Paternity* and *Sonſhip*, *Greatneſs* and *Smallneſs*, are relative Ideas; and ſo are a *Part* and a *Whole*; a King and his Subjects: Beginning, Middle and End.

In Relations we conſider firſt the *Subject* of them, that is the Thing of which we are ſpeaking; this is called the *Relate*; and then the *Term* to which this Thing is related, which is called the *Correlate*. So if we ſpeak of a *Father*, that is the Subject of the Relation; and the *Term* or *Correlate* is the Son: But if we are firſt ſpeaking of the *Son*, then the Son is the *Relate* or *Subject* of the Relation, and the *Father* is the *Term* or *Correlate*.

Some Relations ariſe from the *meer Exiſtence* of the two Beings, ſo the Likeneſs of *two Eggs*. Others require a *Foundation* of the Relation diſtinct from the meer Exiſtence of the Relate and Correlate; as in Maſter and Scholar, *Inſtruction* is the Foundation: In Buyer and Seller, the Foundation is *Compact*.

Relations are of ſeveral Kinds.

1. They are natural or moral, accidental or voluntary. *Natural* Relations are between Root and Branches, Father and Children, Kindred by Birth, *&c.* *Moral* are thoſe Relations which the Actions of Men bear to a Law, and thus they are good or evil, rewardable or puniſhable: this Law is either human or divine, *&c.* *Accidental Relations* are between ſeveral Perſons happening to become Neighbours, or between a Company of Soldiers drawn out by lot,

or

or between Flowers ſpringing up from the ſame Bed of Earth. Relations are *inſtituted* and *voluntary*, i. e. *freely choſen*, as between Huſband and Wife, or two or three Friends, *&c.* Sometimes they are *choſen* or *voluntary* only *on one Side*, as a Carter chuſes what Horſes ſhall make up his Team, or a Man what Houſe he will inhabit.

2. Relations may be termed reciprocal or not reciprocal. *Reciprocal* Relations are Partners, Couſins, Neighbours, Balances, *&c.* Relations *Not-reciprocal* are Cauſe and Effect, Father and Son, Uncle and Nephew, King and Subjects. The firſt indeed are more uſually called *ſynonymous* Relatives, or of the ſame Name; the others we call *Heteronymous* or of a different Name.

3. Relations are divided into *real* or *mental*: the *real* Relations ariſe evidently from the Nature of Things. Theſe are the *Whole and Part*, *Cauſe and Effect*, *Truth and Goodneſs*, &c. as before recited. *Mental* Relations are made only by the Mind; theſe will follow in their due Order.

CHAP. VIII.

Of Truth, Goodneſs and Perfection.

LEST the *Metaphyſicians* ſhould take it ill to have theſe two Affections of Being *(viz.) Truth* and *Goodneſs* ſo much poſtponed, let us name them in the firſt Rank of *Relative*

Relative Affections or Relations which are real. *Truth* and *Goodneſs* are plainly ranked among relative Ideas, for they conſiſt in a Conformity to ſome Things as their Rule and Standard. And firſt let us diſcourſe of *Truth*.

There are various Senſes wherein the Term *Truth* is uſed.

1. A Being is ſaid to be *true* in a *metaphyſical* Senſe, when it is agreeable to the divine Idea, which is the grand Pattern of all created Beings.

2. Things may be ſaid to have a *phyſical* or *natural Truth*, as, that is *true Gold* which has all the neceſſary Properties which are uſually united in the Idea ſignify'd by that Word.

3. Some Things are called *true in Repreſentation*, as when a Picture well repreſents the Original, or when an Idea in our Minds is really conformable to the Object of it.

4. Things are ſaid to be *true in Signification* when the Thing ſignify'd anſwers the Sign; as when the proper Words are uſed which commonly ſignify ſuch an Idea.

5. There is alſo *logical Truth* when the Propoſition or Aſſertion is conformable to Things. And indeed this I think is the moſt common Senſe wherein this Word is uſed. The Propoſitions themſelves are frequently called *Truths*. Some of theſe are called probable, ſome improbable, ſome certain, *i. e.* according to our Knowledge of them. *Again*, ſome Truths are neceſſary, ſuch as, *There is a God, the Whole is bigger than a Part, two and two make*

make four; theſe are called eternal and unchangeable: Other Truths are contingent, as *The Sun ſhone bright to Day*, Plato *was a Philoſopher*.

6. There is alſo *ethical* or *moral Truth*, when our Words or Actions agree to our Thoughts, and our Deeds to our Words, *i. e.* when we ſpeak or act as we think, or when we believe and practiſe what we profeſs and promiſe. *Sincerity* is the Truth of the Heart, and *Veracity* the Truth of the Lips.

After *Truth* comes *Goodneſs*.

Goodneſs is ſometimes uſed in a Senſe neat akin to Truth: So the Works of God are *metaphyſically good* when they are agreeable to his Will and anſwer his Deſign: When God ſurvey'd all Things that he had made, behold they were very good.

Things alſo are *phyſically* or *naturally good*, when they come up to any ſuppoſed Standard, or are fitted to anſwer their End, as *good Wheat*, *good Gold*, a *good Air*.

Artificial Things are alſo good in this Senſe, as *good Writing*, a *good Picture*, a *good Clock*.

There is another Senſe of *natural Good* which is uſed only with relation to ſenſible or to rational and intelligent Beings, and that is what is pleaſant, or which tends to procure Pleaſure or Happineſs.

There is alſo *Moral Good*, which relates only to intelligent Creatures, and that is called *Virtue* when it regards our Neighbours or our

ourſelves; or 'tis called *Religion* when it has a regard to God. *Moral good* in general is when the voluntary Thoughts, Words or Actions of Creatures are conformable to the Reaſon of Things, or to the Law of God. Which of theſe two is the chief or original Rule of Goodneſs may be debated, tho' I rather think 'tis the Will or Law of God, gives the proper Obligation to Obedience.

Note, It ſeems moſt proper to call both *Natural and Revealed Religion* the *Law or Will of God*, tho' one is manifeſted to us by the Exerciſe of our Reaſoning Powers, the other by divine Revelation.

The *Good of Mankind* or of rational Beings is wont to be diſtinguiſhed into the *ſupreme or chief Good* and the *ſubordinate Good:* it is either *real* or *apparent:* it is preſent or future: it is alſo divided into *Bonum jucundum, utile & honeſtum*, i. e. pleaſant, profitable and honourable. The two firſt of theſe come under the Idea of *natural* Good, the laſt is near akin to *moral* Good, tho' perhaps not exactly the ſame.

Note, the Word *Goodneſs* is alſo uſed in ſomewhat a different Senſe when it ſignifies wiſhing or doing good to others; then 'tis called *Kindneſs* or *Benevolence*. This belongs either to God or Creatures: It comes neareſt to the Idea of *Moral* Good, tho' it promotes *Natural Good*, as it is that which tends to procure the Pleaſure or Happineſs of other Beings.

Any

Any thing that is *excellent* in its kind is vulgarly called *Good*, whether it be *natural*, *artificial* or *moral*.

Note, what *Truth* is to the Mind that is *Good* to the Will, *i. e.* its moſt proper Object.

According to ſome of theſe Diviſions of *Truth* and *Goodneſs* it may be proper alſo to ſhew what is *Falſhood*, and what is *Evil*, which are their Contraries: and here the moral Ideas of *Vice* and *Sin* may be introduced, which is the Unconformity of our voluntary Thoughts, Words or Actions, to the Laws of Reaſon, or to the revealed Will of God.

Here we might ſay, as Duties and Virtues conſiſt either in Action or in Abſtinence, ſo Sins are diſtinguiſhed into thoſe of Omiſſion or thoſe of Commiſſion.

We might remark alſo concerning *Good* and *Evil*, that of ſeveral good Things the greateſt is to be choſen, and of ſeveral Evils the leaſt. But theſe Thoughts belong rather to *moral* Science.

Let us proceed now to conſider what is the true Idea of *Perfection*.

When *metaphyſical* or *phyſical Truth and Goodneſs* are united in any Being it is called *Perfect*, i. e. it contains all the Parts and Properties which belong to the Eſſence or Nature of that Thing, without Defect or Blemiſh, it comes up to its Standard, and it is fitted to anſwer all its deſigned or proper Ends.

Where any of theſe are wanting the Being is called *imperfect.*

A Being may be called *perfect abſolutely* in all Reſpects: and that belongs to God alone: It may be ſaid to be *perfect in its own Kind* as a perfect Cube or Triangle, or Circle; that is a perfect Rainbow, which has all its Colours and reaches from ſide to ſide of the Horizon: Or it may be called *perfect comparatively*; that is a perfect Image, Statue or Picture, which has no ſenſible Defects or Unlikeneſs to the Original, and is ſuperior to all others: So eſtabliſhed and knowing Chriſtians are called *perfect* in Scripture in compariſon of Novices.

Again, A Being is perfect either as *to Parts* or as *to Degrees*; an Infant is a perfect Man as to his Parts, but his Degrees of Growth, or of Power to ſtand, to walk, to reaſon, *&c.* are imperfect.

Yet *further*, a Thing may be perfect as to *Quantity* and *Meaſure*, as a Horſe of full grown Stature; but this Horſe may not be perfect as to the *Qualities* and *Powers* of Beauty, or Swiftneſs. So Fruit may be perfect as to its Size, but not as to its Ripeneſs.

In the laſt Place, Things are yet ſaid to be perfect with regard to all their *Eſſentials (viz.)* the natural Parts and Properties which make the Thing be what it is, as a Garden juſt laid out and planted; or it may be perfect with regard to all *Circumſtantials* alſo, which give that

that Thing Beauty, Ornament, Honour, Conveniency, &c. ſuch as well-grown Fruit-trees, ſhady Walks, Summer-Houſes, Green-Houſes, &c. make a perfect Garden.

The Word *Perfect* is ſometimes uſed for *Excellent*, as when we ſay, Beaſts and Birds are more perfect than Fiſhes; Spirits are more perfect than Bodies; and Men more perfect than Brutes.

CHAP. IX.

Of the Whole and Parts.

A Being is ſaid to be a *Whole* when it is conſidered as conſiſting of the ſeveral Parts of it united in a proper manner. And conſequently *Parts* are Beings, which united, conſtitute the *Whole*.

There are four kinds of *Whole* reckon'd up by Writers on this Subject, (*viz.*) *Formal* or *Metaphyſical*, *Eſſential* or *Phyſical*, *Integral* or *Mathematical*, and *Univerſal* or *Logical*. See *Logic*, Part I. Chap. 9. Sect. 7. Theſe are the Terms in which the Schools have expreſſed theſe Diſtinctions; and ſince moſt of the Diſtinctions are uſeful, it is not neceſſary to change the Terms, tho' ſome of them may be applyed in a little more proper and perſpicuous manner.

A *Formal* or *Metaphyſical Whole*, is the Definition of a Thing, whereof the Genus and

the Difference are the two conſtituent Parts. See *Logic*, Part I. Chap. 5. §. 4. I think this is no uſeleſs Diſtinction.

An *Eſſential* or *Phyſical Whole*, is wont to be apply'd to natural Beings, all which were ſuppoſed to conſiſt of *Matter* and *Form:* And thence it is apply'd to *Man* conſiſting of Body and Soul, which the *Peripateticks* called the Matter and Form of Man. But I think the Senſe of it may be better changed or enlarged to include the Subſtance, with all the eſſential Properties of a Thing; which join'd together make up the whole Eſſence of it.

An *Integral Whole*, is when any Thing is made up of ſeveral Parts, which have a real and proper Exiſtence in Nature, and are quite diſtinct from each other; as the Body of Man is made up of Trunk, Head and Limbs: An Army is made up of Soldiers. Number is made up of Units, and a Day of Hours: A Book is made up of Pages, a Page of Words, a Word of Letters; and Speech is made up of articulate Sounds.

Note, This is called a *Mathematical Whole*, when it is apply'd to Number, Time, Dimenſion, Body, or any Thing that hath proper Quantity, but the Term *Integral* may have a wider Extent.

An *Univerſal Whole*, is a Genus which includes ſeveral Species, or a Species which includes ſeveral Individuals. This belongs chiefly to *Logic*; and therefore 'tis called a *Logical Whole*.

Tho'

Tho' Spirits have properly no quantitative Parts, and therefore cannot be called a *Whole of the Mathematical Kind*, yet the Terms *Whole* and *Parts*, may be apply'd to them in all the other Senſes: As for Example, (1.) *Metaphyſical*; ſo a Thinking Subſtance is the whole *Definition* of a Spirit; Subſtance is the *Genus*, and Thinking the *Difference*. (2.) *Phyſical* or *eſſential*; ſo a Spirit is a Whole, and Perception, Judgment, Reaſon, and Will, may be called its eſſential Parts or Powers, without excluding Immateriality and Immortality, as its Properties. (3.) *Integral*; ſo we ſay a whole Army of Angels, a whole Heaven of Bleſſed Spirits. (4.) *Univerſal* or *Logical*; ſo a Spirit is a *Genus* or generic Whole, human Souls and Angels are the *Species*, or ſpecial Parts.

As for Man, who is a compound Being made up of Body and Soul, I think he may be called as properly an *Integral Whole*, and then we leave the Term *Eſſential Whole* to ſignify only a Subſtance with all its Eſſential Properties.

Query. When we ſay, One of *Tully*'s Orations is made up of happy Thoughts, juſt Reaſonings, warm Perſuaſives, beautiful Tranſitions, pure Language, and well-ſounding Periods, are theſe *integral* or *eſſential* Parts, and how is the *Whole* to be denominated? But let us proceed.

Parts are either *homogeneous*, i. e. of the ſame Kind, as Branches are Parts of a Tree; or *heterogeneous*, i. e. of different Kinds, as the ſeveral Limbs and Bowels are Parts of an Animal. And even *homogeneous* Parts may be *ſimilar* or *diſſimilar* in ſeveral Circumſtances, as the Branches of a Tree may be fruitful or unfruitful, long or ſhort, vigorous or withering.

Note 1. That which is a *Whole* in one Senſe, may be a *Part* in another. This whole Globe of Earth is a Part of the Univerſe.

Note 2. The *Whole* is bigger than each *Part* taken ſeparately, and equal to all the Parts taken conjunctly.

Note 3. The *Part* of a Part is alſo a Part of the Whole. A Finger is a Part of the Body, becauſe 'tis a Part of the Hand.

CHAP. X.

Of Principles, Cauſes and Effects.

A Principle may be with ſufficient Propriety diſtinguiſh'd from a Cauſe, as a general Nature from one ſpecial Kind. Principles are any ſort of Springs whatſoever, either of Eſſence or Exiſtence, of Knowledge, or of Operation.

I. Principles of *Eſſence* or *Exiſtence* are either (1.) *Continent*, as Herbs, Minerals; Metals are

are Principles of Medicines, for they contain in them the Juices, Oils, Spirits and Salts, and medicinal Extracts, which are drawn from them by the Chymists. Or, (2.) Principles are *Constituent*, as compound Medicines are made of several Simples, as their Principles; or as Matter and Form are the constituent Principles of particular Bodies; or as Stone and Timber of a House, or as any Parts of a Thing are Constituents of the Whole. Or, (3.) Principles are *Causal*, such are all the Tribes of Causes to be mentioned hereafter.

II. Principles of *Knowledge* are either *internal* as Perception, Reason; or *external* as Objects, Books. Both these are either *Natural*, as Sense, sensible Things; or *Supernatural*, as Visions, Inspirations.

Again, Principles of Knowledge are more *simple*, as Ideas, or Words, or Letters; or they are more *complex*, as Propositions, and particularly such as are self-evident, as Axioms, or such as contain the chief Truths or Rules of any Doctrine, Art or Science.

III. Principles of *Operation* may sometimes include the Beings themselves, which operate as Writers, Warriors, *&c.* as well as their Natural Powers, *(viz.)* Hands, Strength, Skill, *&c.* and their Moral Powers, *(viz.)* Law, Authority, *&c.* And *Supernatural* Principles, *(viz.)* Revelation and divine Influences.

Almoſt all Principles, except the *Conſtituent* and *Continent*, may be reduced to ſome or other of the Kinds of Cauſes.

A *Cauſe* in general is a Principle diſtinct from the Thing itſelf, and hath ſome real and proper Influence on the Exiſtence of that Thing. An *Effect* is that which is produced, done or obtained by the Influence of ſome other Being, which is called the Cauſe.

1. *Note*, No Being can properly be the Cauſe of itſelf: Yet a Fountain may be the Cauſe of a River, tho' the Water in both may be the ſame *materially*, but not *formally*; for a Fountain ſprings out of the Earth, a River runs along on the Earth, between a length of Banks.

2. *Note*, Every Being, beſides the firſt Being, wants a Cauſe: God the firſt Being, is ſelf-exiſtent or independent, and has no Cauſe: He exiſts from a Neceſſity of Nature and Self-ſufficience, yet not properly as the *Cauſe* of his own Being; but all other real Beings are derived from him as from their Cauſe.

3. *Note*, The ſame Thing in different Reſpects may be both a Cauſe and an Effect. Clouds and Vapours are the *Effects* of the Sun, but the *Cauſe* of Rain.

4. *Note*, A Cauſe is in Order of Nature before its Effect, but not always in Time. For a Fire gives Heat, and a Star gives Light as ſoon as they exiſt.

Cauſes in general may be divided many ways. 1. Into

1. Into *univerſal* and *particular:* The Sun, Earth, Rain, are all *univerſal Cauſes* of Plants, Herbs and Flowers: for by the ſame ſort of Influences each of them produce various and different Effects: But the particular Seeds are the *particular Cauſes* of each different Herb and Flower. *Common* and *proper* Cauſes are very near akin to the former Diſtinction.

2. Cauſes may be divided into *remote* and *proxime*; as an infectious Air or *Eaſt Wind* may be the *remote* Cauſe of the Death of Men; but the ſeveral Diſeaſes ariſing thence are the *proxime* Cauſes. A Father is the *proxime* Cauſe of his Son, a Grandfather the *remote* Cauſe.

3. Cauſes are *univocal*, as when a Lion produces a young Lion; when a Fountain of Water ſends forth a Stream of Water; or when Money being lent, gains Money by Intereſt: But they are *equivocal* when a Man writes a Book, when a Root produces a Stalk and Leaves, or when Money buys Land. In the three firſt the Effect is of the ſame Nature with the Cauſe; in the three laſt it is different.

4. Again, Cauſes are *ſole* or *ſolitary*, as when a Horſe alone eats a Gallon of Corn; or *ſocial*, when a Hen and Chickens ſhare it among them. So a Peſtilence is a *ſolitary* Cauſe when it deſtroys a City; but when an Army

Army made up of Officers and Soldiers conquer it, theſe are *ſocial* Cauſes.

Social Cauſes are either *co-ordinate* as common Soldiers fight a Battle, or *ſubordinate*, as the ſeveral Degrees of Officers, *(viz.)* Colonels, Captains, Lieutenants, and the Common Soldiers under them. Among ſubordinate Cauſes we ſometimes conſider the *firſt*, the *laſt* and the *intermediate*; whether one or more.

Note, In Cauſes acting by a *neceſſary Subordination* the Cauſe of a Cauſe may be juſtly deemed the Cauſe of the Effect. The Man who throws in the Firebrand, which kindles the Gunpowder, which blows up a Ship, is the Cauſe of the Death of the Sailors.

Note, In ſubordinate Cauſes you muſt at laſt come to a firſt Cauſe, for there is no infinite or endleſs Subordination of Cauſes.

Query. If a round Chain of many Links were uſed to bind a Veſſel of Liquor inſtead of a Hoop, is not each Link ſubordinate to its Neighbour in their Influence? And which of all theſe is the firſt Cauſe? *Anſ.* Theſe are all co-ordinate and not ſubordinate Cauſes; though they are dependent, yet it is on each other mutually, and they are all equally dependent.

5. Yet further, Cauſes in general may be divided into *total* and *partial*. An *abſolutely total* Cauſe is much the ſame as a *ſole* Cauſe: But a Cauſe may be *total in its own kind*, tho' many

many other Cauſes concur to produce the Effect. *Alexander* the King, *Apelles* the Painter, his Idea, his Hand and his Pencil, are each a *total* Cauſe of *Alexander*'s Picture, for each of theſe is ſingle and alone in their diſtinct Influences: But the ſeveral Colours are *partial* Cauſes, for they have all the ſame Influence: and ſo are the Fingers of the Painter, for they all join their Service in guiding his Pencil.

6. Cauſes are alſo diſtinguiſh'd into *Phyſical*, which work by natural Influence; and *Moral*, which work by Perſuaſion.

7. A Cauſe is called *Ordinary*, when it works according to the uſual Courſe of Nature, as when Animals produce their own Kind: 'Tis *extraordinary* or miraculous, as when the Rod of *Moſes* produced ſwarms of Lice in *Egypt*.

After all theſe Diſtinctions of *Cauſes in general*, let us now come to diſtribute Cauſes into their chief *particular Kinds*. Inſtead of dividing them into thoſe common Branches of *Material* and *Formal*, *Efficient* and *Final*, it may be much more proper to leave out *Matter* and *Form*, as not being properly *Cauſes*, and then we may diſtribute the reſt into four Kinds, *(viz.) Emanative*, *Efficient*, *Inſtructive* and *Suaſive*: and as I think none of theſe are included properly in each other, ſo theſe include all the various Ideas of poſitive proper Cauſes in the moſt natural and eaſy View and Order.

I. An

I. An *Emanative* Cauſe is, when the Effect flows from it without any Action to produce it, ſuppoſing only that all Obſtructions be removed. So Water flows from a Spring, ſo Heat from the Fire, or a fragrant Scent from Spices. This might perhaps be reduced to the Rank of *continent Principles* whence any thing proceeds, tho' it much better deſerves the Name of a *Cauſe* than *Matter* and *Form*, which are only Conſtituents, and are the Effect itſelf. It belongs chiefly to natural and neceſſary Cauſes to have the Title of *Emanative*.

Sometimes the Effect is *co-eval* with the emanative Cauſe, as Light and Heat flowing from the Sun, or a ſweet Smell from a Violet. Sometimes the Cauſe is *prior* to the Effect, as when a Plant ſprings from the Seed, or Leaves and Fruit from a Tree, or a long River from a diſtant Fountain.

Query, Whether ſome of thoſe which are uſually called *emanative* Cauſes, becauſe their Agency is more inſenſible and unnoticed, be not as properly rank'd among the *efficient* Cauſes? Such as, the Sun in emitting its Rays, which give both Light and Heat and produce innumerable Effects throughout the Earth and all the planetary Worlds? Is it a meer emanative Cauſe of Light and Heat? *Anſ.* This may be debated in *Phyſiology* if it be worth a Debate.

II. An *Efficient Cauſe* moſt properly deſerves the Name of a *Cauſe*, becauſe it produces

duces the Effect by ſome ſort of active Power or natural Agency; as when an Archer bends his Bow, or when the Bow gives Flight to an Arrow, or when an Arrow ſtrikes the Mark. All theſe three are diſtinct efficient Cauſes with their diſtinct Effects.

Efficient Cauſes have many Diviſions.

1. Efficient Cauſes are either *firſt* or *ſecond*. The firſt Cauſe is either *abſolutely ſo*, which is God alone, and all Creatures are but ſecond Cauſes: Or 'tis *firſt in its own kind*; ſo a Gardener is the firſt Cauſe of the Growth of Trees in the Garden which he hath planted; all his under Agents, whether Diggers, Waterers or Weeders, are ſecond Cauſes.

2. The next Diviſion near akin to the former is when efficient Cauſes are diſtinguiſhed into *Principal*, *leſs Principal*, and *Inſtrumental*. The Principal Cauſe of building a Houſe is the Architect; the leſs Principal are adjuvant or aſſiſtant Cauſes, ſuch are Bricklayers, Carpenters, Labourers, *&c.* the inſtrumental Cauſes are Hammers, Axes, Trowels, *&c.*

3. Efficient *internal* Cauſes are diſtinguiſhed from *external:* when the inward Humours of the Body produce Pain or Death, 'tis different from the Caſe when outward Wounds and Bruiſes produce the ſame Effects.

4. Efficient Cauſes may be *exciting* and *diſpoſing*, as when Hunger excites a Horſe to eat, or a Farmer holds Hay to his Mouth: But when a Farrier conſtrains him to take a Drench,

Drench, this is a *compelling* and *conſtraining* Cauſe.

5. A Cauſe is *forced*, as when a Man driven by Robbers runs in at his Neighbour's Window by Night for Shelter: or 'tis *free*, as when a Robber breaks into the Houſe to plunder it.

6. Yet further, efficient Cauſes may be *neceſſary*, as when the Sea drowns a Child who falls into it; or *contingent*, as when a Tile falls from a Houſe and kills a Child; whereas it might only have wounded him, or perhaps not hurt him, or never touched him.

7. *Again*, Cauſes may be *accidental*, as when a Boy throws a Stone at a Bird and breaks a Window: But when he doth Miſchief on purpoſe, the Cauſe is *deſigning*, and the Effect is *deſigned*. When a Groom leads a lame Horſe to Water, the Groom is the *deſigning* Cauſe of the Horſe's walking, but he is only the *accidental* Cauſe of his halting. The famous Pair of Cauſes which in the Schools is called *Cauſa per accidens* and *Cauſa per ſe* may be applied to theſe two or three laſt Diſtinctions of efficient Cauſes *.

* I know *accidental* and *contingent* Cauſes are much the ſame; but I thought it more proper here to muliply the Diviſions of Cauſe than to crowd all theſe Cauſes, (*viz.*) *Forced*, *Free*, *Deſigning*, *Contingent* and *Neceſſary* into one Diviſion, becauſe ſome of them have two or three Oppoſites, and have their Ideas a little diſtinct, which beſt appears in diſtinct Pairs. See more in the Chap. of *Act* and *Power*, *Neceſſity* and *Freedom*.

8. *Again*

8. *Again, Efficient Cauſes* may be either *procuring* or *confirming, preventing*, or *removing*. So Medicines confirm or procure Health, and prevent or remove Diſeaſes.

9. Efficient Cauſes may be *creative, conſervative, alterative* or *deſtructive*. The very Names of theſe deſcribe them ſufficiently.

Note, Here might be introduced that famous Axiom of the Schools, that *every Cauſe contains its Effect*, or that *there is nothing in the Effect which was not in the Cauſe:* but this muſt not be underſtood always *formally* as a Fountain contains Water, but ſometimes, only *eminently*, i. e. as the Root of a Tree contains Leaves and Fruit, becauſe it can produce them; and indeed when we ſearch this Axiom to the Bottom it means nothing more than that *every Cauſe can produce its Effect*, which is a very dilute and inſipid Canon, becauſe 'tis contained in the very Definition of a Cauſe. Beſides 'tis a very odd and uncouth manner of ſpeaking, to ſay, that a Whetſtone contains in it the Sharpneſs of a Scythe, not *formally* but *eminently*, becauſe it can make a Scythe ſharp. Yet this is the Caſe in a Multitude of theſe metaphyſical Axioms; I mention this only as an Inſtance at preſent, and as a Reaſon why I have paſt ſo many of them over in Silence.

III. The third Kind of Cauſe is an *inſtructive Cauſe*. This works either by way of Manifeſtation of Truth, or Direction in Practice,

tice, and may be called *Manifeſtative* or *Directive*.

1. In the *Manifeſtation of Truth* this Cauſe ſometimes operates in *Silence*; as a Book, or Diagram, a Picture, a Map, a Mariner's Compaſs, or magnetick Needle: Sometimes 'tis *vocal*; as a Tutor, or a Watchman in the Night, or perhaps a Cuckow giving notice of the Spring, or a crowing Cock of the Morning.

2. In the *Direction of Practice* this Cauſe is either a *Rule* which teaches us to act whether by Speech or Writing; or 'tis a *Pattern* or *Example* for us to imitate and copy after. Sometimes this is a living *Example* which by acting ſhews us to act the ſame; or 'tis a *Guide* which ſeems to include both the former *(viz.)* Teaching and Shewing, or Rule and Example.

Many times the *inſtructive* Cauſes which primarily manifeſt Truth are in ſome Senſe *directive* alſo, as they are deſigned alſo ultimately to direct our Practice; ſo a Mariner's Needle pointing where the North lies directs the Pilot to ſteer the Ship.

Note, *Active* inſtructive Cauſes approach toward the Idea of an efficient Cauſe; the Unactive are quite diſtinct.

Note, All this ſort of Cauſality works its Effect chiefly in intellectual Agents.

Query, But may not an *inſtructive* Cauſe ſometimes be attributed to Brutes? Dogs or Horſes will teach one another what Man has taught them.

Note,

Note, The word *Directive* may ſometimes be applied to Phyſical Cauſality, as when a Pilot or Steers-man guides a Ship by the Rudder, or when a Tube or Ring guides an Arrow to the Mark, when a Canal conveys Water to a Ciſtern, or when any hard Body by repelling or reflecting determines any moving Body to a particular Point. But all theſe are more properly ranked under *efficient* Cauſes than *directive*, becauſe they do it by meer Mechaniſm, without ſo much as the Appearance of any intellectual Influence upon the Thing directed, and can never be called *inſtructive*.

Query, When a Sun-dial ſhews the Hour, the Sun and the Style of the Dial ſeem to be *ſocial efficient* Cauſes; the Sun by giving Light and the Style by limiting it with Shade: But what ſort of Cauſe is the Dial-plane? Is it not *inſtructive*?

IV. A *Suaſive Cauſe* is properly ſomething from without, which being apprehended by the Mind, excites or inclines a voluntary or free Agent to act, and it works either by Entreaty or Authority, by Commands or Counſels, by promiſing or Threatning, by Rewards or Puniſhments, by Fear or Hope, or any other Motives, all which are called *moral Agency* or *Influence*.

Suaſive Cauſes are either perſonal or *real*. Perſonal are chiefly ſuch as theſe *(viz.)* Author or Perſuader, Commander, Encourager, *&c.* Real ſuaſive Cauſes are the End or De-

ſign, the Object, Occaſion, Opportunity, Merit or Demerit. Any Being, Appearance or Circumſtance whatſoever, that tends to influence the Agent in a *moral* way, *i.e.* to effect and perſuade the Will, may be properly called a *ſuaſive* Cauſe.

This ſort of Cauſes belongs alſo chiefly if not only to intellectual and voluntary Agents.

Yet it may be query'd whether a Pond inviting a Horſe to drink be a ſuaſive or an efficient Cauſe? Is the Influence of this Object on the Animal properly natural or moral? Food inviting a hungry Man to eat has certainly both a natural and a moral Influence, becauſe he has both animal Nature and reaſoning Powers.

The *End* or Deſign is one of the chief of *ſuaſive* Cauſes. This is uſually called *The Final Cauſe*, and makes a conſiderable Figure in the Doctrine of Cauſes. It is defined, *That for the ſake whereof any Thing is done.* An Artificer labours hard; his *End* is to procure Bread; his Labour is called the *Means.* The End is the Cauſe, the Means the Effect.

Under the Idea of an *End* all the Doctrine of *final Cauſes* with all their Diviſions ſhould be introduced.

1. Here therefore comes in firſt the Diſtinction of *ultimate End* or *ſubordinate:* An ultimate End is either *abſolutely* ſo, ſuch is or ſhould be the End of all our Actions (*viz.*) the Glory of God and our own final Happineſs,

neſs, or it is *ultimate in its own kind*; ſo Learning or Knowledge is the chief End of Reading. *Subordinate* Ends are ſuch as tend to ſome further End, as Knowledge is ſought in order to practiſe; Practice in order to Profit and Pleaſure in this Life, or Preparation for the Life to come.

Note, There may be many *co-ordinate* Ends of the ſame Action which are not *ſubordinated* to one another. A Man rides on Horſe-back for his Pleaſure, for his Health, and for a Viſit to his Friend. If one of theſe Ends be much ſuperior in his Eye to the others, that is called the *primary* End, others are but *ſecondary*, tho' not *ſubordinate*.

2. The End is conſider'd as in the *Intention* of the prime Efficient, or in the *Execution*. In the Intention it moves or excites the Efficient Cauſe to act by a moral Influence, and 'tis in this View it properly comes in among *ſuaſive* Cauſes. But in the Execution it becomes the Effect of the prime Agent by a *natural* Influence or Cauſality.

3. Another manifeſt Diſtinction of final Cauſes is into ſuch as are *private* and *concealed*, or ſuch as are *publick and avow'd*.

4. There is another Diſtinction which the Schools call *Finis cujus*, i. e. the End or Deſign of the Workman, and *Finis cui* which is the End or Deſign of the Work. A Clock-maker's Deſign is Gain, but the Deſign of the Clock is to ſhew the Hour.

1. *Query*, Are Brutes influenced by final Cauſes? Their Actions look very like it. But doth not acting for ſome Deſign or End imply Reaſoning? Is this Reaſoning in themſelves or in their Maker only? What is it then in the Brutes themſelves? Can meer Inſtinct or Mechaniſm perform all theſe Operations?

2. *Query*, Is it not an evident Truth that all Cauſes muſt have a Being before they can act, at leaſt in order of *Nature* tho' not always in *Time?* But may not many *ſuaſive* Cauſes act before they exiſt? as for inſtance; a Thief is tempted to provide a Ladder to Day becauſe there will be an *Opportunity* at Night to come over the Garden Wall: And do not *final* Cauſes always act before they exiſt, ſince the Action of the Efficient is deſign'd to produce their Exiſtence as the Effect? *Anſ.* All ſuaſive Cauſes act by the Idea of them exiſting in the Mind, whether the Things themſelves exiſt or no.

1*ſt Note*, The *End* and the *Means* are mutually Cauſe and Effect to each other. When the End is conſider'd as a *ſuaſive* Cauſe, the Means are the Effect; but when the *End* is conſidered as the Effect, the Means are an *inſtrumental* or *ſubordinate efficient* Cauſe under the Influence of the principal Efficient.

2*d Note*, The End reconciles the Agent to thoſe Means which may be painful and unpleaſant, and it regulates and limits the Uſe of Means. A ſick Man who ſeeks Health is perſuaded to uſe Bliſters or bitter Portions, and his

his uſe of them is regulated and limited by the View of Health.

3. *Note*, In the Series of final Cauſes ſubordinate to each other, that which is *laſt in Execution* is generally *firſt* or *chief in the Intention*; but 'tis not always ſo; for when the chief End is obtained leſſer Ends may be ſometimes purſued. I retire into the Country chiefly for my Health; but when I am well I deſign alſo to viſit my Friends there, and I ſeek my Health partly with that Deſign.

Beſides theſe four kinds of *Cauſes* which have a plain, a poſitive and direct Influence upon the Effect, there are ſome other Principles which alſo have their diſtinct ſorts of Influence, tho' not in ſo poſitive and direct a manner: Yet they have been dignified with the Title of *Cauſes* for want of a fitter Name. The chief of them are, a *deficient* Cauſe, a *permiſſive* Cauſe, and a *Condition*.

I. A *deficient Cauſe* is when the Effect owes its Exiſtence in a great Meaſure to the Abſence of ſomething which would have prevented it; ſo that this may be reckoned a *negative* rather that a *poſitive* Cauſe: The Negligence of a Gardener, or the Want of Rain, are the Deficient Cauſes of the withering of Plants; and the Careleſſneſs of the Pilot, or the ſinking of the Tide is the Cauſe of a Ship's ſplitting on a Rock: The Forgetfulneſs of a Meſſage is the Cauſe of a Quarrel among Friends or of the Puniſhment of Servants: The not

bringing a Reprieve in time is the Cauſe of a Criminal's being executed, and the Want of Education is the Cauſe why many a Child runs headlong into Vice and Miſchief: The Blindneſs of a Man or the Darkneſs of the Night are the Cauſes of ſtumbling: A Leak in a Boat is a deficient Cauſe why the Water runs in and the Boat ſinks; and a Hole in a Veſſel is called the deficient Cauſe why the Liquor runs out and is loſt. Man is the deficient Cauſe of all his Sins of Omiſſion, and many of theſe carry great Guilt in them.

II. A *Permiſſive Cauſe* is that which actually removes Impediments, and thus it lets the proper Cauſes operate. Now this ſort of Cauſe is either *natural* or *moral*.

A *natural permiſſive Cauſe* * removes natural Impediments, or Obſtructions, and this may be called a *de-obſtruent Cauſe*. So opening the Window-Shutters is the Cauſe of Light entering into a Room: Cleanſing the Ear may be the Cauſe of a Man's hearing Muſick who was deaf before: Breaking down a Dam is the Cauſe of the overflowing of Water and drowning a Town: Letting looſe a Rope is the Cauſe of a Ship's running a-drift: Leaving off a Garment is the Cauſe of a Cold and a Cough; and

* If the Word *De-obſtruent* were always uſed to denote a Cauſe removing natural Obſtructions, then we might leave the Term *permiſſive* only to ſignify moral Cauſes of this kind.

and cutting the Bridle of the Tongue may be the Cauſe of Speech to the Dumb.

Note, The Cauſe which removes natural Impediments may be a proper efficient Cauſe with regard to that Removal, yet it is not properly *efficient*, but meerly *permiſſive* with regard to the Conſequences of that Removal.

A *moral permiſſive Cauſe* removes moral Impediments, or takes away Prohibitions, and gives leave to act: So a Maſter is the permiſſive Cauſe of his Scholars going to play; a General is the ſame Cauſe of his Soldiers plundering a City; and the repeal of a Law againſt foreign Silks is the permiſſive Cauſe why they are worn.

Query, Was not God's Permiſſion of *Satan* to afflict *Job* rather natural than moral, ſince his miſchievous Actions did not become lawful thereby, and ſince it is now become his Nature to do Miſchief, where he has no natural Reſtraint?

III. A *Condition* hath been uſually called *Cauſa ſine qua non*, or a Cauſe without which the Effect is not produced. It is generally apply'd to ſomething which is requiſite in order to the Effect tho' it hath not a proper actual Influence in producing that Effect. Day-light is a Condition of Ploughing, Sowing and Reaping: Darkneſs is a Condition of our ſeeing Stars and Glow-worms: Clearneſs of the Stream is the Condition of our ſpying Sand and Pebbles at the bottom of it: Being well

dreſt with a Head uncovered is a Condition of a Man's coming into the Preſence of the King: And paying a Pepper-corn yearly is the Condition of enjoying an Eſtate. How far the perfect Idea of the Word *Condition* in the civil Law may differ from this Repreſentation is not my preſent Work to determine.

Note, Theſe three laſt Cauſes may poſſibly be all ranked under the general Name of *Conditions*; but I think it is more proper to diſtinguiſh them into their different Kinds of Cauſality.

CHAP. XI.

Of Subject and Adjunct.

THE greateſt part of what is neceſſary to be ſaid on this Theme may be found in *Logick*, where it treats of *Subſtances* and *Modes*: But in this Place the Word *Subject* is more uſually conſidered as having *accidental Modes* relating to it than thoſe which are *eſſential*, for ſo the word *Adjunct* means here.

As a Being or Subſtance may be a *Subject* of Inheſion, Adheſion or of Denomination, ſo *Adjuncts* may perhaps ſometimes be uſed in a large Senſe to include ſome *internal Qualities* which may inhere in the Subject; but the Word more generally ſtands diſtinguiſh'd from inherent Qualities, and ſignifies more properly *external Additions* or *Appendices*, which adhere

to

to the Subject or *Names* and *Denominations*, by which it is called.

The moſt conſiderable *Adjuncts* of all Appearances or Actions are what we call *Circumſtances*, which include Time, Place, Light, Darkneſs, Clothing, the ſurrounding Situation of Things, or Perſons, and the concomitant, antecedent, or conſequent Events.

When the Word *Subject* ſinifies a Subject either of Occupation, of Operation, of Thought or Diſcourſe, it may be properly alſo called an *Object*; as a Houſe or Timber are *Subjects* or *Objects* on which a Capenter works, about which he is occupied, or of which he thinks or diſcourſes.

Objects are either *immediate* and *proxime*, or *mediate* and *remote*. The Pages and Words of a Book are the *immediate* Object of a Student's Occupation; Notions and Opinions, Arts and Sciences are the *remote* Object, becauſe they are taught by theſe Pages. So a diſpleaſed Superior is the *remote* Object of my Addreſſes, but the Mediator by whom I hope for Reconciliation is my more *immediate* Object, I ſend Letters to my Friend *remotely*, but I deliver them *immediately* to the Poſt.

Again, *Objects* are either *common* or *proper*. The Shape, and Motion, and Size of Bodies are *common* Objects of two different Senſes, *(viz.)* of *Sight* and *Feeling*: Colour is the *proper* Object of *Sight* alone; Sound of *hearing*, and Cold of *feeling*.

The

The *Subjects* of which ſeveral Sciences treat are called their *Objects:* Theſe are either material or formal: The Body of Man is the *common material Object* both of Anatomy and Medicine; tho' one conſiders it as a curious Engine whoſe Parts are to be diſſected and known, the other views it as capable of Diſeaſes and Healing; which two Conſiderations added to the human Body conſtitute the *proper* and *formal Objects* of thoſe two Sciences.

CHAP. XII.

Of Time, and Place, and Ubiety.

TIME is eſteemed a relative Affection, for it commonly refers to ſomething that meaſures it.

Time is finite and ſucceſſive Duration, and 'tis diſtinguiſhed (as I have before obſerved) into *paſt*, *preſent* and *future*; 'tis uſually meaſured by the Motion of ſome Bodies, whoſe Motions are ſuppoſed to be moſt regular, uniform and certain. And for this Reaſon Mankind have generally agreed to meaſure *Time* by the Revolution of the heavenly Bodies, Sun, Moon, and Stars; and God himſelf appointed them for this End: Thence Centuries, Years, Months, Weeks, Days, Hours, and Minutes have their Riſe.

But amongſt the ruder and more untaught Parts of the World both in ancient and later Ages, *Time* has ſometimes been meaſured by any

any of thoſe Things which are ſuppoſed to keep their regular returning Periods and Seaſons, as Cold and Heat, Snow and Ice, periodical Rains or Winds, particular Fruits, Corn, Harveſt, the Coming or Departure of certain Birds to particular Countries, or Fiſh to particular Coaſts.

All the Things before mentioned are a ſort of *natural* Meaſures or Determinations of Times and Seaſons: But Hour-Glaſſes, by Sand or Water, Clocks, Watches, *&c.* are *Artificial* Meaſurers of Time, and ſome of them perform it with greater Exactneſs even then the Motions of the heavenly Bodies, at leaſt in their Appearances to us on the Earth.

As for the *Time* or *Duration* of Spirits while they are united to human Bodies, or Vehicles, or make their Appearances on Earth, it is meaſured by ſome of the Things we have mention'd: But the Duration or Time of thoſe Spirits which have no Relation to our World, muſt be meaſured in ſome other manner which at preſent we know not.

Here is a famous *Queſtion*, whether God's Duration or Eternity be not co-exiſtent with our Time, and the Duration of the World, and whether ſuch a part of Eternity be not commenſurate therewith? 'Tis evident this is our common Idea of it. But 'tis hardly juſt, for in Truth *Eternity* is an Idea above our preſent Reach, and we loſe ourſelves in an Abyſs,

Abyſs, when we wander into it. See the Chapter of *Duration*, and the Chapter of *Infinites*.

A *Moment* is called the leaſt Part of Time: So an Atom is the leaſt Part of Matter: But modern Philoſophers ſuppoſe all Sort of Quantity to be infinitely diviſible, whether it be *Magnitude*, which is called *permanent Quantity*; or *Time*, which is called *flowing Quantity*; and then there is properly no Atom, no Moment.

Place or Situation is a relative Idea: for it is generally deſcribed as that Relation of Proximity or Diſtance which any Being bears to the viſible Bodies that are round about it, and are uſually eſteem'd quieſcent, or at reſt.

Place is diſtinguiſh'd indeed by many modern Philoſophers into abſolute and relative: *Abſolute Place* is made to ſignify that Part of the ſuppoſed infinite Void or Space, which any Being fills up and poſſeſſes. And *Relative Place* is the Situation of a Being among other Bodies, which are look'd upon as quieſcent; and it muſt be granted we uſually conceive Things in this manner: But if *Space* be a Creature of the Imagination, and a meer Idea or nothing real, then all *Place* is properly relative, and a Body exiſting alone has no Place.

The Place of a Spirit has been often call'd *Ubiety*, which may moſt properly refer to ſo much of the material World, of which it has a more evident Conſciouſneſs, and on which it

it can act: In God the infinite Spirit, his *Ubiety* is whereſoever there are Objects for his Conſciouſneſs and Activity: And you may extend this to all poſſible, as well as real and actual Worlds, if you pleaſe; for he knows and he can do whatſoever can be known or can be done, and therefore he is ſaid to be every where. But with Regard to conſcious Beings, whether created or increated, I confeſs I have no clear Idea how they can have any proper Locality, Reſidence, Situation, Nearneſs, or Juxta-poſition among Bodies, without changing the very Eſſence or Nature of them into extended Beings, and making them quite other Things than they are.

When we ſay *God the Infinite Spirit is every where*, let it be underſtood therefore, that in a ſtrict philoſophical Senſe we mean that he has an immediate and unlimited Conſciouſneſs of, and Agency upon all Things, and that his Knowledge and Power reach alſo to all Poſſibles, as well as to all actual Beings. When we ſay *the Soul of Man is in his Body*, we mean, it has a Conſciouſneſs of certain Motions and Impreſſions made on that particular animal Engine, and can excite particular Motions in it at Pleaſure. What further Ideas are contained in the *Ubiety* of Spirits I know not.

When we conſider Bodies as preſent in a Place by their proper Situation, this may be called

called a *Circumſcriptive Preſence*: A Spirit's Preſence in a Place by Conſciouſneſs or Operation hath been called a *definitive* or limited Preſence; becauſe its Conſciouſneſs and Operation are not univerſal or infinite: God's Omnipreſence, or his being every where, hath been termed his *repletive Preſence*, becauſe the Scripture ſays, *God fills Heaven and Earth*; tho' this Term perhaps does not properly anſwer the philoſophical Idea, yet it may be uſed in a vulgar and figurative way of ſpeaking, which is perfectly agreeable to the Language and Deſign of the ſacred Writers.

CHAP. XIII.

Of Agreement and Difference, of Sameneſs, and the Doctrine of Oppoſites.

THE *Agreement* and *Difference* of Things are found out by that Act of the Mind which we call *Compariſon*, wherein we compare one Thing with another; but we ſometimes alſo compare the ſame Thing with itſelf at different Times or Places, or as veſted with different Qualities, or under different Circumſtances, or Conſiderations, and in different Reſpects, and ſo we ſay a Thing agrees with, or differs from itſelf.

Agreement is either *real*, that is in Subſtance, or *modal*, that is in Modes, Properties-

ties or Accidents, or 'tis *mental*, i. e. ſuch as is made only by our Conceptions.

Again, Agreement is either *internal*, i. e. in Eſſence, in Quantity, or in Quality; or 'tis *external*, that is in Cauſes, Effects, Adjuncts, Circumſtances and Names.

Yet further, Agreement is either *total* and *perfect*, when there is no manner of Difference, or *partial*, which admits a Difference in ſome Reſpect. Perfect Agreement in the higheſt Degree is uſually called *Sameneſs*, yet this Word is ſometimes uſed alſo to ſignify lower Degrees of it.

Sameneſs or *Identity* is attributed to Things which agree in Eſſence, or have an Eſſential Agreement; but Agreement in Quality is properly called *Likeneſs*.

An Agreement in Quantity, if it be perfect, is ſometimes called *Sameneſs*, but more properly *Equality*. Agreement in Value requires an Agreement in Quantity, where the Quality is the ſame; ſo five Shillings is the ſame with a Crown, or Equal to it, *i. e.* it is the ſame Quantity of Silver. But ſometimes Agreement in Value ariſes from the Difference of Quality compenſating the Exceſs or Defect in Quantity; ſo a Guinea of Gold is equal to twenty one Shillings in Silver.

But if the Agreement in Quantity be not abſolute and perfect individual Sameneſs, it is called *Proportion:* So we ſay there is a Proportion

portion between ſixteen and twenty-four, for one is two thirds of the other: And ſo there is between three fives and fifteen, for they are equal.

Agreement in Shape or Figure is uſually called *Similarity*, ſo two equilateral Triangles are ſimilar Figures.

Two or more Things may be ſaid to have the *ſame general* Eſſence or Nature, ſo Beaſts, Birds, Fiſhes agree in that they are Animals: or they are ſaid to have the *ſame ſpecial Nature*; ſo Hounds and Spaniels agree in that they are Dogs; *Peter* and *Paul* agree in that they are Men. But 'tis only one thing has the *ſame individual Nature* or Eſſence with itſelf, as *Methuſelah* when a Boy, a Youth and an old Man is the ſame. Hence ariſe the Ideas of generical, ſpecifical, and numerical or individual Sameneſs.

Again, Sameneſs is either *material* or *formal*. Wheat is the ſame Body *materially* when it is a Heap of Grains, as when it is ground and moulded into Bread, but 'tis not *formally* the ſame.

One would think it a very eaſy Queſtion, *Whether a Thing be the ſame with itſelf or no?* But whoſoever will read what Mr. *Locke* has written upon *Identity* in Chap. 27. Book II. of his *Eſſay*, will think it a ſort of inſolvable Difficulty in ſome Caſes, and almoſt an impoſſible Thing to anſwer that Query in ſome particular Inſtances, eſpecially relating to *Men*, *Animals*, &c. This Queſtion in the Language

guage of the Schools is, *What is the Principle Individuation?* i. e. what is neceſſary to make a Thing the ſame with itſelf?

Here we may conſider the *Sameneſs of ſingle Bodies*, as a Grain of Wheat; of *Aggregates*, as a Heap of Sand; of *Compounds*, as a Houſe, a Garden: Here enquire how ſmall or how great a Difference will hinder theſe from being called the ſame.

Again, let us conſider the *Samneſs of Rivers*, *Vegetables* and *Animals*, each of which Semeneſſes conſiſt in very different Ideas, and ſome are difficult to adjuſt.

Conſider yet further the *Sameneſs* of Spirits which conſiſt in the ſame thinking Power or Subſtances; and the *Sameneſs of Perſons*, which conſiſt chiefly in the very ſame Conſciouſneſs, the ſame Self, or rather in the ſame ſingle conſcious Principle.

Conſider here alſo the *Sameneſs of Mankind*, when Body and Soul are united, or when divided; when fat and lean; when Infants or in old Age; and the Sameneſs of our Bodies in the Reſurrection with what we now have. All theſe will afford ſufficient Labour for Philoſophy and Reaſon to hunt after the clear and diſtinct Ideas of them. Mr. *Locke* in this Chapter has ſome excellent Reaſonings, tho' I cannot aſſent to all his Sentiments entirely. See *Eſſay* XII. *Sect. ult.*

Similitude or *Likeneſs* is an Agreement chiefly in Qualities, tho' ſometimes it relates alſo to Eſſence, Natures and Subſtances. This may be *total* and *complete*, or *partial* or *gradual*. There is alſo Likeneſs in the *ſame Kind*, as one Picture is like to another: And Likeneſs in a *different Kind*, as one Picture to a Statue; or Poeſy to Painting; or Verſe to Muſick; which ſort of Likeneſs is ſometimes called *Cognation* or *Anology*.

The Word *Anology* at other Times ſtands for Proportion; our Idea whereof chiefly ariſes from our Compariſon of two Quantities together, and conſidering the Relation they bear to each other: Now this is properly a Relation of Agreement, and not of Difference; and I think we may ſay, that *Proportion* includes every ſort of Agreement in Quantity, beſides perfect and individual Sameneſs, whether this Quantity be Magnitude, or Number or Time. Hence ariſe the Ideas and Terms, *equal* and *unequal*, *greater* and *leſs*, *more* or *fewer*, &c. but it is not neceſſary for us here to enter into the *Mathemetical* Diſtinctions of *Proportion*, whether *Arithmetical* or *Geometrical*, whether *direct* or *inverſe*, which belong only to thoſe Sciences.

The Idea of *Proportion* may alſo be applied to any *Qualities* whatſoever, which admit of gradual Differences, and to which the Ideas of *more* or *leſs* may be attributed, as Whitneſs, Cold, Good, Evil, *&c.* This Proportion

portion is either *Equality*, *Exceſs* or *Defect*; ſignified v. c. by the Words, as *white*, *whiter* or *leſs white*. Herein the Science of *Grammar* uſes its *poſitive* and *comparative* Names. Where the Exceſs or Defect is extreme, as in *whiteſt* or *leaſt white*, 'tis all the *Superlative*.

Having ſpoken ſo much of *Agreement*, we ſhould ſay ſomething of *Diſagreement* or *Difference* too. Obſerve that *Difference* in this Place is not the ſame Idea with that which is mentioned in *Logic* as the primary eſſential Mode of any Being, and which is join'd to the *Genus* to make a *Definition*. See *Logic*, Part I. Chap. 6. Sect. 4. But *Difference* here includes every Diſtinction of one thing from another. The pointing out of this *Difference* is properly called *Diſtinguiſhing*.

Difference or *Diſtinction* is either *real*, i. e. ſubſtantial, as one Subſtance differs from another: or it is *modal*, as Modes, Properties or Qualities differ from the Subſtance, or from one another: or it is *mental*, which is made only by the Mind of Man. And indeed *Difference* or *Diſagreement* may admit of moſt or all the ſame Diviſions which belong to the Idea of *Agreement*, which we need not ſtand to repeat.

Note, Things which really differ may exiſt ſeparate, but modal or mental Difference between Things is not ſufficient for the ſeparate Exiſtence of Both.

Note, The Difference between Modes or Properties is ſometimes called a *real Difference*, becauſe it is founded in the real Nature of Things, and ſo it ſtands in oppoſition to *mental*, which is meerly the Work of the Mind of Man making Diſtinctions, where Things are really the ſame.

Diſagreement in Subſtance or Eſſence is properly called *Diverſity*: in Quality, it is *Diſſimilitude*: in Quantity it ſtands in Oppoſition to *Sameneſs*, and then it is peculiarly called *Difference*; or it may ſometimes ſtand in Oppoſition to *Proportion*, and then it may be called *Diſproportion*, as, there is a Diſproportion between Finites and infinites, *i. e.* there is no Proportion between them.

The Word *Diſproportion* is generally uſed in a more vulgar Senſe; it ſignifies ſometimes a very great Difference between two Quantities of Numbers, as two is diſproportionate to two thouſand: Sometimes it means, that one Part or Adjunct of a thing is too big or too little for the others: So we ſay that the large Noſe of *Naſo* was diſproportionate to his Face, or the ſmall Garden of *Dioclefian* was diſproportionate to his former Palace.

Theſe two following Notes concerning *Agreement* and *Difference*, belong eminently to *Logic*, and ſhew the Reaſon of uſing a middle Term in Ratiocination.

1. In whatſoever two Things agree to a third, they alſo agree ſo far among themſelves.

ſelves. This is the Foundation of affirmative Syllogiſms.

2. In two Things whereof one differs from a third, while the other agrees to it, thoſe two differ ſo far among themſelves. This is the Foundation of negative Syllogiſms.

Let us proceed now to conſider *Oppoſition* which is counted one of the chief or higheſt Kinds of Difference or Diſagreement.

There are five ſorts of *Oppoſites*, which are generally mentioned here, (*viz.*) *Diſparates*, as Green, Yellow, Red, Blue, &c. *Contraries*, as White and Black: *Relative Oppoſites*, as Father and Son: *Private Oppoſites*, as Sight and Blindneſs: And *Negative Oppoſites*, i. e. *Contradictories*, as power and Impotence, perfect and imperfect, or ſeeing and not ſeeing.

But of theſe five perhaps three are ſufficient: For *Diſparates* ſhould not be properly called *Oppoſites*, ſince they are only different Spices under the ſame Genus. Nor can all *Relatives* be properly called *Oppoſites*, as when two Eggs are ſaid to be like each other, or two Friends who are entirely unanimous and agreeing in their Humours.

We may obſerve here, that among *Contradictories* ſome are expreſs, others are implied. 'Tis an expreſs Contradiction to talk of a *godly Atheiſt*, tho' one Expreſſion be *Engliſh* and the other *Greek*; for it ſignifies a Man that owns no God, and yet owns and honours him. But a *godly Hypocrite* is but an implicit

Contradiction, and ſo is a *religious Villain*, one who owns God in Words, but in Works denies him.

It may be worth while alſo to take notice of two ſorts of *Contraries*, (viz.) They are termed *mediate* where there is ſome middle Being or Quaility that partakes of both the Extremes, as *Lukewarm* between Hot and Cold: and *Gray* between Black and White. They are *immediate* where there is no ſuch middle Being or Quality, as *Streight* and *Crooked*.

Note 1. Contraries mutually abate or deſtroy one another. Black and White mingled, do by Degrees take away the Whiteneſs, or Blackneſs of the Object: ſo Heat and Cold: ſo virtuous and vicious Diſpoſitions.

Note 2. Contradictories can have no proper Medium; a Chamber is ſquare or it is not ſquare; a Man can ſee or he cannot ſee.

Note 3. All Oppoſites placed near one another give a mutual Illuſtration to each other, and make their diſtinct Characters appear plainer. Hence proceeds the reaſon of *Foyles* among Painters and Jewellers, Orators and Poets.

CHAP. XIV.

Of Number and Order.

NUMBER and *Order* are the laſt among the real relative Affections.

Number is a manner of Conception, by which

which we reckon Things together, and conſider them as more or fewer.

Every Thing indeed exiſts ſingularly, or as an Unit; and ſo it may be an *abſolute* Idea; But as *One* or *Unit* is part of a Number, ſo it is *relative*; and ſince many Unites do really exiſt, ſo the Idea of Number is a *real* Idea, or a real Relation derived from their being more than one.

Number is made up of many Units put together, and therefore ſome Ontologiſts may chuſe to treat of it in the Chapter of *Unity*; but it plainly denotes a Relation between two or more Beings or Ideas.

Number by the Schools is called *diſcrete Quantity*, as a Heap of Acorns, a Row of Trees: whereas *Magnitude* is called *continual Quantity*, whether it be in a Rock or a River, tho' one be fluid, the other ſolid.

Note 1. Number is needleſs where Unity is ſufficient for the ſame Ends; and a greater Number is needleſs where a leſs is ſufficient. Nature generally is obſerved to work in the moſt ſimple Ways and Manners. What infinitely various Purpoſes in the whole Univerſe of Bodies does that one ſimple Principle of *Gravitation* ſerve to execute.

Note 2. Therefore in our ſolving any difficult Appearances, we ſhould not multiply Beings without Neceſſity. This has been the unhappy Cauſe of introducing into the Schools of Science ſo many Principles which have no

being in Nature; ſuch as ſubſtantial Forms, occult Qualities, *Materia prima*, real Space. Subſtance in general, that is capable either of Cogitation or Solidity, *&c.*

Now let us proceed to ſpeak of *Order*.

The Idea of *Order* is derived from the Conſideration of one Thing as being before another, or after another, or together with it. The Terms uſed on this Occaſion are *prior*, *poſterior*, and *ſimultaneous*.

Order is five fold. There is the Order of *Time* of *Nature*, of *Place*, of *Dignity*, and of *Knowledge*. A Man is before his Son in *Time*: the Sun before its Light in *Nature*: the Horſes before the Cart in *Place*: a King before a Duke in *Dignity*: and a Line muſt be *known* before an Angle.

Things are ſaid to be *together in Time*, either which begin at the ſame Time, as the Sun and Light, Fire and Heat; or which in ſome Part of their Being, Life or Time, coexiſtent with each other; as *Plato* and *Ariſtotle* may be called *Contemporaries*, tho' the Maſter was much older than the Scholar.

CHAP. XV.

Of Mental Relations, (viz.) *abſtract Notions, Signs, Words, Terms of Art*, &c.

THUS we have finiſhed all the *real Relations*, and proceed to thoſe that are *mental*. *Men-*

Mental Relations are ſuch as belong not to Beings as ſtanding in any real Relation to each other, but they are made meerly by our Minds, and ariſe only from our manner of conceiving Things, or from Modes which our Minds affix to them. They are known by this Mark, *(viz.)* that if there were no intelligent Beings to conceive of them, the *mental Relations* could never have been.

The chief of this Kind are *pure abſtracted Notions*, *Signs*, *Words*, *Terms of Art*, and *external Denominations.*

Pure abſtract Notions are what the Schools call *ſecond Notions*, *ſecond Intentions*, or in Latin *entia rationis*, i. e. meer Creatures of the Mind.

Yet 'tis not every Sort or Degree of *Abſtraction* that properly makes a *mental Relation:* When we firſt abſtract the Idea of any ſpecial Nature from its individual Circumſtances, *v. c.* the common Idea of a *Man* or *Humanity* from the particular Ideas that diſtinguiſh *Peter* and *Paul*, this is not a meer *mental Affection* or Relation, tho' 'tis an *abſtract Idea*, for it is part of the *real* and *abſolute Idea* of *Peter* or *Paul*; becauſe all Things contain'd in the general Idea of a *Man* have a *real Being* in Nature; tho' not really ſeparate from ſome Individual.

But when I abſtract this common Idea of *Humanity* yet further in my Mind by conſidering it as a ſpecial Nature or Notion that agrees to ſeveral Individuals, and under this preciſe Conſideration

Conſideration I call it a *Species:* this is a *mental Relation:* Or in like manner when I call the abſtract Idea of *Animal* a *Genus*; theſe and the like are more properly termed *pure abſtracted Notions*, or (if I may uſe the Word) they are *ſecond Notions*, becauſe they are made by a *ſecond Abſtraction*, and ſo they are at leaſt one Remove farther diſtant from *real Beings*. The Idea of *Predicaments* or *Predicables* in *Logic* are of the ſame Kind; and I think we may rank the Ideas of *Noun* and *Verb*, *Caſe* and *Declenſion* in *Grammer* under the ſame Claſs.

The general Ideas of *Subſtance* and *Mode*, *Cauſe* and *Effect*, are abſtract Ideas alſo, tho' they are not abſtracted to that Degree, as to make meer *mental Relations*, or *ſecond Notions* of them, ſince they have a Reality and Exiſtence in Things themſelves.

It is granted, that ſome of theſe Abſtractions are neceſſary and uſeful in the Sciences; yet *Logic* and *Metaphyſics*, as they have been taught in the Schools, have been too much over-run with theſe *ſecond Notions*, theſe more *refined Abſtactions*, which have expoſed them to the Contempt and Ridicule of the more judicious and polite Part of Mankind.

A *Sign* is another mental Relation: It is that which being apprehended gives notice to the Mind of ſomething beſides itſelf, and that is called the *Thing ſignified*.

The Schools generally make a *Sign* to be ſomething ſenſible; but I think there is no Neceſſity for that; for Ideas that ariſe within the Mind, are Signs of outward real Beings: And ſome Thoughts may be ſo connected with other Thoughts or Actions of the Man as to become Signs of them. The Memory of a Sermon is a good Sign of Attention; and Pity is a Sign of Benevolence.

1. *Signs* are either natural or inſtituted. Smoke is a *natural* Sign of Fire. *Inſtituted* Signs are either *divine*, as Baptiſm is a Sign of waſhing away Sin; or *human*, as a white Staff is a Sign of an Officer at Court. Inſtituted Signs are often called *arbitrary*.

2. Again, *Signs* are either *meer Tokens* or they are both *Tokens* and *Images:* Thoſe are meer *Tokens* which do not repreſent the Thing ſignify'd, as a Rainbow is a Token the Earth ſhall not be drowned again. Thoſe are *Images* as well as *Tokens*, which do more or leſs repreſent the Thing ſignify'd, ſuch are Pictures drawn to the Life, ſuch alſo are Baptiſm and the Lord's Supper in the Chriſtian Religion.

3. *Signs* are diſtinguiſh'd into *Antecedent*, as the gathering of thick Clouds is a Sign of Rain: *Conſequent*, as a Funeral is a Sign of Death: And *Concomitant*, as ſhivering is the Sign of an Ague; and a high Pulſe, with a thirſty Palate, and Fleſh very hot, are common Indications of a Fever.

4. That

4. That other Diſtinction of *Prognoſtick*, *Memorial* and *Commonſtrative* Signs in many Caſes it prety much akin to the former. A Hiccup with an intermitting Pulſe and Limbs growing cold and ſtiff, are *Prognoſticks* of Death: A Funeral Ring is the memorial of a Friend departed: And a Tomb is the *Commonſtrative* Sign of a Perſon buried there.

5. *Signs* are appointed *to put us in mind* of our Intereſt, to *admoniſh* us of our Duty, to *warn* us of the Danger of ſome Evil, or to *encourage* our Hope of ſome Good.

Yet further, 6thly, *Signs* are either *Seals* to ſignify and confirm what has been done, or *Pledges* to denote and aſſure what is to be done; or *Indications* and Evidences of what is doing.

In the laſt Place, *Signs* are ſometimes *neeeſſary* and *certain*, as the morning Star foretels the approaching Sun-riſe with Aſſurance; and ſometimes *contingent*, or only *probable*, as a very dark Sky in cold Weather is a Sign of Snow a coming, but it is a doubtful one.

Note 1. Tho' there are many Caſes wherein a Sign is really, naturally and neceſſarily connected with the Thing ſignified, yet it acquires the proper Character of a Sign only by the Work of the Mind, which makes one Thing to ſignify another; and therefore it is properly a *mental Relation*.

Note 2. There are ſcarce any two Things in the World ſo exceeding diſtant and different

rent from each other, but they may become Signs of each other by a voluntary or an accidental Aſſociation of their Ideas in the Mind. If a Man ſhould happen to ſee an Eclipſe of the Sun in the Water when he was fiſhing for Salmon, he may perhaps never ſee a Salmon, but he may think of an Eclipſe.

Among all the *Signs* that are uſeful to Men, the chief are *Words*, which are the moſt univerſal Signs of our Thoughts or Ideas: But theſe ariſe only from the Appointment and Agreement of Men. See a larger Account of this in *Logic*.

Tho' all *Words* and *Names* are Signs found out by the *Mind* of Man, and ſtand to ſignify Things by the meer Agreement of Men, yet thoſe are more eminently *mental* Relations which are called *external Denominations*, that is, Names given to Things upon the Account of ſome Conception which the Mind affixes to them rather than for any thing that really belongs to them; as when we ſay, *Germany* lies on the *right* Side of *England*, and *Ireland* on its *Left:* This is a meer external or outward Denomination drawn from our uſual manner of inſpecting a Map with our Face toward the *North* Part of it: but if we look on it with our Face to the *South*, *Ireland* will lie on the Right, and *Germany* on the Left.

Many Terms of Art which are called *Technical Words*, are a ſort of *outward Denominations*

tions which are uſed in various Sciences to ſignify the manner of our Conceptions of Things. If I ſay a *Dog is a Species of Beaſts*, the Word *Species* may be called a *logical* Term of Art: Or when I ſay the Name Dog is a *Monoſyllable*, or it is made up of one *Vowel* and two *Conſonants*, I think theſe are *grammatical* Terms of Art, and may be called *mental Relations*. *Fa*, *Sol*, *La*, *Mi*, are the ſame in Muſick.

Thus far the *Affections of Being*.

CHAP. XVI.

The chief Kinds or Diviſions of Being, and firſt of Subſtance *and* Mode.

AFTER we have gone through the *various Affections of Being*, we come now to conſider what ſeveral *Kinds of Being* there are: And 'tis certain they may be diſtinguiſhed by the Mind of Man in very various Ways, and caſt into ſeveral Kinds or Species: But thoſe which are moſt common in this Science, and indeed not univerſal, are theſe three Diviſions of them. *Beings* are either *Subſtances* or *Modes*, *finite* or *infinite*, and *natural*, *artificial* or *moral*.

The firſt and moſt general Diviſion of *Being* is into *Subſtance* and *Mode*.

Every Being is conſider'd either as ſubſiſting of itſelf, without the Support of any Creature,

Creature, and then it is called *Subſtance*, as an Egg, a Tree, Air, Water, a Man, an Angel; or it is conſidered as ſubſiſting by virtue of ſome other Being in which it is, or to which it belongs; and then it is call'd a *Mode*, as Length, Motion, Shape, Colour, Softneſs, Wiſdom, Knowledge.

Note, When we ſpeak of Beings, we do more uſually underſtand *Subſtances*, becauſe they ſeem to have a more conſiderable ſort of Nature and Exiſtence: But ſince many Modes, Properties and Qualities have alſo a *real* Exiſtence in Nature, and ſometimes have other Modes and Affections belonging to them, beſides vaſt Powers and Influences in the Univerſe, I think they cannot well be excluded from the comprehenſive Idea of *Being*.

Thoſe Philoſophers who are of this Opinion, are called the *Realiſts*; whereas the Writers who allow only *Subſtances* to have a *real* Exiſtence, and deny Qualities, Properties, Relations, or any ſort of Modes *really* to exiſt, becauſe they do not ſubſiſt by themſelves, theſe are called *Nominaliſts* or *Nominals*.

'Tis granted indeed that meer *relative* Modes or Relations of Things one to another, ſuch as Likeneſs, Order, Place, *&c.* ſeem ſtill to partake leſs of the Nature of Beings than ſuch *real* Modes, as Motion, Figure and Quantity do; yet many of theſe Relations have a *real* Foundation in Nature, and a Sort of Reality in Things as well as in our Conceptions.

tions. *Query*, Muſt we take them out of all the Ranks of *Being*, when the Word is taken in its very largeſt Senſe?

Tho' there have been fierce Contentions on this Subject between the *Nominals* and *Realiſts*, yet the Controverſy is not worthy of any warm Debate: For while it may be allow'd on both ſides that Being does not in ſo full and ſtrong a Senſe belonging to *Modes*, as it does to *Subſtances*, the Diſputants may agree by ſaying, that ſelf-ſubſiſting Beings have a *ſubſtantial* Eſſence and Exiſtence, whereas the Eſſence or Exiſtence of Modes is but *modal*. Why ſhould Names provoke Diſputes, where our Ideas agree?

All *Subſtances* that we know are either Material or Intelligent, *i. e.* Bodies or Spirits. Man indeed is compounded of both of them; but as for *Space*, which is neither Body nor Spirit, I take it to be a *Non-entity* or *nothing* real, but a meer Idea of the Mind, which we are wont to conſider, under the Form of ſomething long, broad and deep, without Solidity. Perhaps theſe poſitive Conceptions ariſe by our abſtracting ſome Properties of Matter from the reſt, or only from a Prejudice of Senſe and Imagination, juſt as we conceive of Darkneſs or a Shadow to have the Dimenſions of Length and Breadth, and fancy it to have Shape and Motion too, tho' we know 'tis properly *Not-being*, or a meer abſence of Light.

After

After Subſtances, we come to conſider *Modes of Being*, and theſe have alſo their various Kinds into which they are diſtributed, *(viz.)* eſſential and accidental, primary and ſecondary, inherent and adherent, *i. e.* Qualities and Adjuncts, and many others. But in *Logic* they are treated of largely; and therefore I diſmiſs the Reader to *Logic* Part I. Chap. 2. Sect. 3 and 4.

CHAP. XVII.

Of Finite and Infinite.

THE Ideas of Finite and Infinite come next to be conſidered by us.

Finite Beings are thoſe which are limited or bounded in their Natures, their Parts, their Quantity, their Qualities, their Powers and Operations, or their Duration. *Infinite* is that which is unlimited, and hath no Bounds.

When *Subſtances* are called *finite* or *infinite*, 'tis chiefly in reſpect of their Quantity, or in reſpect of their Powers. All Subſtances are in this Senſe finite or infinite: But as there are ſome Qualities or Modes of Being which are called infinite or finite, ſo there are ſome to which neither *finite* nor *infinite* can properly agree: We ſpeak of Knowledge, Goodneſs, Patience, Length, Breadth, *&c.* as finite or infinite: But there is no ſuch Thing as a finite or infinite Blue, Red or Green; no finite or

infinite Likeneſs between two Drops of Rain: There is no finite or infinite Truth in a Propoſition, nor finite or infinite Crookedneſs in a Stick.

The *Univerſe of Bodies* is finite in its Dimenſions or Quantity, as well as every ſingle Body. I have elſewhere ſhewn, that the ſuppoſed *Space* beyond the World is probably nothing at all, and therefore not properly infinite or finite; tho' we often ſpeak of the *infinite Void*, i. e. Emptineſs or Abſence of Being every where beyond the Creation, unbounded by any real Being: For as *Nihility* may be called the Limit of Being, ſo Being may be ſaid to limit Nihility.

The Idea of *finite* belongs to created *Spirits* as well as *Bodies:* not in Regard of Quantity, if they have no Dimenſions; but in regard of their Qualities, their Knowledge, and Power and Goodneſs, and all their Operations, for all theſe are confined to certain Limits. Yet they are allow'd to have an everlaſting or unlimited Duration, *i. e.* with regard to the future, or a *parte pòſt*, tho' not with regard to the paſt, or a *parte antè*, as the Schools ſpeak: that is, tho' they may have no End, yet they had a Beginning.

This unlimited Duration of Spirits has been called uſually *Immortality* or *Eviternity*. And indeed this Property doth really belong alſo to Matter conſider'd in *general* as well as to *Mind*; for however variable and mortal the parti-

Particular Forms and Compoſitions of Bodies may be, yet as for Body or Matter itſelf nothing can deſtroy or annihilate it but the God that created it.

We have little to do with the Ideas of *infinite*, but in our Conceptions of the everlaſting Duration of our Natures, and in our Contemplations of God, or of Mathematical Quantities.

How far the Duration of our *Souls* is infinite, has been expreſt.

The *Infinity* of *God* has been uſually diſtinguiſh'd into the Infinity of his Eſſence, or his Duration, or his Attributes.

1. The Infinity of his *Eſſence* or *Preſence* is his Immenſity or Omnipreſence: How this is to be underſtood concerning his Conſciouſneſs and Power or Influence rather than Extenſion. See the Chapter of *Time and Place.*

2. The Infinity of his *Duration* is his Eternity, without Beginning and without End, *a parte antè* as well as *a parte pòſt.* See the Chapter of *Duration.*

3. The Infinity of his *Attributes* implies that his Knowledge and his Power have no Bounds; or that his Power, Knowledge, Holineſs, Wiſdom, Goodneſs, are infinite, *&c. i.e.* every way perfect in the moſt abſolute Senſe.

When we conſider an *Infinite* under this Idea of actual *abſolute Perfection*, it may be counted a *poſitive* Idea; but if we conſider it as *without Limit*, 'tis *negative*: Yet ſome refine

further, and make the Word *Limit* a negative Term, becauſe it denies Progreſs or Increaſe, and thus *Infinite* becomes a ſort of *poſitive* Idea again.

Mr. *Locke* teaches us that our Idea of *Infinite* is not a compleat Idea, but rather an Idea *ever growing* and receiving Additions; and for the moſt part this is a juſt Idea of it, for it is certain, that this is the way we come by this Idea at firſt. Yet the Idea of an *actual poſitive Infinite* directly contradicts this *growing Idea*, for it ſuppoſes all Addition impoſſible. We are finite Creatures, and we ſoon loſe ourſelves among Infinites.

Indefinite is not a Medium between Finite and Infinite, for they are two contradictory Ideas; Indefinite therefore only denotes our Ignorance of the Limits of a Thing.

No actual Infinite can conſiſt of finite Parts, for there is ſome Proportion between the Parts and a Whole, but between Finite and Infinite there is no Proportion.

Yet Mathematicians oftentimes deal in *Infinites*, both with regard to *Magnitude* and *Number*: and tho' there be not in Nature any actual infinite Quantity of either Kind, for there is no Magnitude, there is no Number, which cannot receive Addition, yet they form a ſort of abſtracted Notion of infinite Length, Breadth, Depth, of infinite Extenſion and Diviſibility, and reaſon upon them.

There

There is alſo *infinite Diſproportion* when they treat of Quantities and their Infiniteſimals, *i. e.* ſuch as bare no finite Proportion to the Quantities whoſe Infiniteſimals they are.

Their *infinite Approximations* may be juſtly ranked among the ever-growing Ideas.

CHAP. XVIII.

Of natural, moral and artificial Beings and Ideas.

THE laſt Diſtribution of Beings which I ſhall take notice of is into natural, moral and artificial.

Natural Beings are all thoſe Things that have a real and proper Exiſtence in the Univerſe, and are conſider'd as formed and ordain'd by God the Creator; ſuch are Bodies, Spirits, Men, Beaſts, Trees, Fruit, Strength, Countenance, Senſe, Reaſon, Fire, Air, Light, *&c.*

Tho' ſome of theſe are produced by others, as *Eggs* by a *Hen*, and *Fruit* from a *Tree*, yet God is generally conſider'd as the Author of all natural Beings; and indeed he is ſo either immediately by himſelf, or by the Laws of Nature, which he has ordain'd.

Artificial Beings are made by the Contrivance or Operations of Men, whether they are of a *meer corporeal* Nature, ſuch as Houſes,

Houſes, Windows, Pictures, Statues, Arms, Garments, Writing, Muſick, and the various Utenſils of Life; or whether they relate more to *intellectual* Matters, as Words, Sciences, Rules, Arguments, Propoſitions, Verſe, Proſe, *&c.*

Note, Tho' in ſome *natural* Beings Man is ſaid to be the more immediate Author or Cauſe of them, ſuch as a *Father* of his *Son*, &c. and in all *artificial* Beings whatſoever, yet the Power of Man reaches only to what is *modal* in them: 'Tis God alone can make *Subſtances*, for that is moſt properly a Creation.

Moral Beings are thoſe which belong to the Behaviour, Conduct and Government of intelligent Creatures, or Creatures endued with Freedom of Will, conſider'd as lying under Obligations to particular Actions or Abſtinences: But theſe conſider'd as *moral* are only *modal*; ſuch are Law, Duty, Virtue, Vice, Sin, Righteouſneſs, Judgment, Condemnation, Pardon, Reward, Puniſhment.

As Beings have been thus divided into *natural*, *artificial* and *moral*, I think we might almoſt in the ſame manner run through all the Sciences, and give new Names to different Beings, by calling them *Logical*, *Mathematical*, *Political*, &c. applying theſe Names to the Subjects which theſe Sciences treat of.

I confeſs I ſhould chuſe rather to call them *different Ideas* than *different Beings*, and under this

this Conſideration we may ſay *Logical* Ideas are ſuch as Genus and Species, Definition and Syllogiſm: *Mathematical* Ideas are Length, Breadth, a Cube, a Circle, Multiplication, Proportion, *&c.* Our Ideas are called *Medicinal*, when we diſcourſe of *Sudorificks* and *Bolus's:* And when we ſpeak of Kings, Subjects, Laws, Rebellion, Allegiance, Treaſon, *&c.* theſe are *Political Ideas*; but God, Holineſs, Chriſtianity, Repentance, Goſpel and Salvation are *Theological*, and of higheſt Importance above all other Kinds of Ideas.

The E N D.

The CONTENTS

OF

This Scheme of ONTOLOGY.

CHAP. I. *OF Being and not Being, with a general Scheme of the Affections of Being* Page 322

CH. II. *Of abſolute Affections, and firſt of Eſſence or Nature, Matter and Form* 326

CH. III. *Of Exiſtence, whether actual, poſſible or impoſſible; neceſſary or contingent; dependent or independent* 330

CH. IV. *Of Duration, Creation and Conſervation* 335

CH. V. *Of Unity and Union* 338

CH. VI. *Of Act and Power, Action and Paſſion, Neceſſity and Liberty* 341

CH. VII. *Of Relative Affections or Relations* 347

CH. VIII. *Of real Relations,* (viz.) *Truth, Goodneſs and Perfection* 349

CH. IX. *Of the Whole and Parts* 355

CH. X. *Of Principles, Cauſes and Effects* 358

CH. XI. *Of Subject and Adjunct* 376

CH. XII. *Of Time, and Place, and Ubiety* 378

CH. XIII. *Of Agreement and Difference, of Sameneſs and the Doctrine of Oppoſites* 382

CH. XIV. *Of Number and Order* 390

CH. XV. *Of mental Relations,* (viz.) *Abſtract Notions, Signs, Words, Terms of Art,* &c. 392

CH. XVI. *The chief Kinds or Diviſions of Being, and firſt of Subſtance and Mode* 398

CH. XVII. *Of Finite and Infinite* 401

CH. XVIII. *Of Natural, Moral and Artificial Beings and Ideas* 405

FINIS.